Annual Report of the
Survey Operations in Bengal
(Other than Cadastral surveys)
1914-15 to 1918-19.

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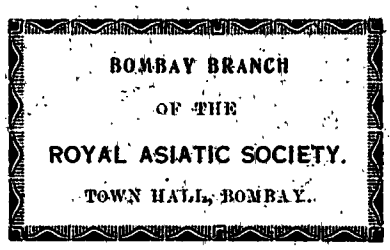

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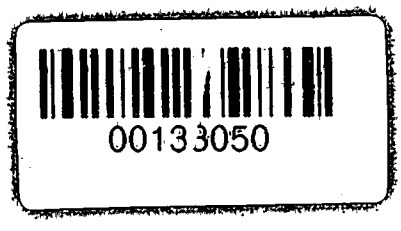
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ANNUAL REPORT

ON THE

SURVEY OPERATIONS IN BENGAL

(OTHER THAN CADASTRAL SURVEYS)

DURING THE YEAR

133050

1914-1915.

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No. 5386.

FROM MAJOR F. C. HIRST, I.A.,
Director of Surveys, Bengal,

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,
REVENUE DEPARTMENT.

Dated Calcutta, the 21st December 1915.

SIR,

I HAVE the honour to submit my report for the year ending 30th September 1915. I was on privilege leave from 6th October 1914 to 5th November 1914, and then on special duty in the Public Works Department until 30th April 1915. Captain A. H. Gwyn, I.A., acted for me until 10th December 1914 when he proceeded on service in Mesopotamia. Mr. J. C. Nixon, I.C.S., was gazetted to replace Captain A. H. Gwyn on 11th December 1914 and was virtually in charge of the Department until 1st May 1915, since which date I resumed full charge. The appointment of an Indian Civil Service officer to the Department is the first in its history and is not intended to be a precedent. Mr. Nixon was selected mainly because of his mathematical and science training, and in my opinion the selection has been a very happy one in every way.

Captain C. M. Thompson, I.A., Assistant Director of Surveys, reverted to Military employ on 8th January 1915.

2. The major traverse outturn of the year was 4,086 square miles, as against 3,629 square miles in 1913-14.

3. The following changes occurred during the year :—

(*a*) In anticipation of Assam Surveys being cut adrift from those of Bengal, all the Bengal sections of the Shillong Drawing Office were moved to Calcutta (except that for map reproduction) towards the end of 1914.

(*b*) The reproduction work of Bengal is in process of being moved to Calcutta from Shillong.

(*c*) Arrangements have been made for Assam to have its own Survey Department at once, and these arrangements are nearly complete.

(*d*) The Imperial Standard Mapping Section for preliminary editions of Standard Maps so far employed upon Bihar and Orissa work was handed over to me during the year, as the Bihar and Orissa programmes were nearing completion. When that work is finished, it is proposed to employ the section entirely upon Bengal work.

4. An analysis of cost rates for Traverse and Reproduction will be found in Appendices I and IV. Appendix 1B shows that the cost rate for traverse for the districts of Mymensingh, Noakhali and Midnapore are within the estimated rates. Jessore and Bankura are naturally a little high compared with the estimate rates, as they are new districts opening for survey. The Diara work in Rajshahi has increased the rate a little, while the scattered nature of the work in Midnapore has had a similar effect on this season's rates.

With respect to the actual costs for the season's traverse, I have to say that the Mymensingh work proved more straight forward than was anticipated, the increase in Tippera is roughly proportional to the increase of area, Jessore was a new district and delays were more insistent than in Bankura, while the work in Midnapore was of such a scattered nature that a closer estimate was impossible.

The charges for reproduction shown in Appendix IV exhibit anomalies inasmuch as Settlement Officers vary in the degree with which they keep to their forecasts. I find Rs. 4,067 as the estimate for Faridpur maps and Rs. 8,247 for Midnapore, but there must have been mistakes here. The extra maps of the Settlement Officer, Dacca, made up for those not received from the Settlement Officer, Mymensingh.

5. Plans have been made to obtain a central store for the department opposite Paksi on the Eastern Bengal State Railway, and to do away with separate General Sections with each executive unit.

Neither of these matters has yet been decided finally by Government.

6. I was employed for a time during the year with Messrs. Heaton and Henderson of the Indian Educational Service, upon an enquiry into Survey Education in Bengal. Our report has been sent to Government, but has not yet been scrutinized.

7. For emergent reproduction work required to be done in Calcutta, a small section was started at 87, Park Street, during the year. It has proved most useful, and has saved much time since it obviated the necessity for sending such work to Shillong.

8. During the year I published a History of the Calcutta Surveys (1901-1914), which is referred to in Chapter II, Part III of this report.

9. I am personally responsible for the delay that has occurred in the submission of this report. The actual cause has been my ill-health.

10. Special attention is drawn to paragraphs 13, 15, 16, 17, 19, 28, and 29 of this report.

11. As in last year I advised the Cooch Behar State in its Traverse and Cadastral work.

CHAPTER II.

Part I.—Surveys in temporarily settled and Government Estates under settlement of Rent and Land Revenue.

Nil.

Part II.—Surveys in Private Estates.

Traverse of the North Diara Block (Jamuna River).

12. **Mymensingh District.**—The programme assigned was completed during the early part of the field season and the plots sent to the Settlement Officer of Mymensingh for Cadastral Survey in the same season.

13. **Noakhali and Tippera Districts.**—The Traverse Survey of Thanas Hatia, Lakshmipur and Ramganj of Noakhali district, including outlying islands of that district, and of Thanas Chandpur and Hajiganj of district Tippera were completed, but not until the end of May 1915. Considerable delay was caused by the necessity for careful subtense measurements across the wide sea channels between islands and the main land.

It is a pity that no accurate triangulation could be made ahead of the traverse, but the Surveyor-General, who was asked, found that it was impossible to arrange for it owing to the war.

It is in this area that the main extension to the delta is proceeding. and in my opinion a careful triangulation would be very valuable, since it would act as a base for comparison of present and future land extensions. With the *data* of old surveys that is available any accuracy of comparison is at present impossible.

I suggest that Government consider this question maturely.

14. **Jessore District.**—The traverse of this district was commenced in the year under report. The programme was completed, and although much sickness was anticipated, the staff kept unexpectedly good health. This was probably due to the area being one in which active rivers still exist, and it is probable that considerable sickness will be encountered in the rest of the district.

15. **Bankura District.**—The traverse of this district was commenced in the year under report, but before the recess work was completed, it was decided to postpone the cadastral work originally expected next year. This change was due to curtailment of expenditure, owing to the war. The computations were completed, but no 16-inch traverse plots were made, as I considered it inadvisable to make them sooner than cadastral requirements rendered essential.

An area of 200 square miles was done on the square system of traversing, the results of which will not be known until the Cadastral Survey is taken up.

16. **Midnapore District.**—It was hoped that this year would have seen the completion of the traverse of this district of patchwork operations. The case is a very good illustration of the expensiveness of surveying individual estates and ultimately taking up the surrounding country. In the case of this district, in one previous survey whole villages had not been surveyed, but in very many cases, portions of villages, only had been done. The programme worked out at 301 square miles, exclusive of 100 square miles of diara lands in the north of the district.

This programme was completed, but much time was lost in locating traverse stations of previous surveys, so as to connect old and new work.

It now transpires that there remains still more work to be done next year. The hunting up of details of omissions has given the Settlement Officer a great deal of trouble, and it is nobody's fault (except that of the old surveyors) that these omissions have come to light at such a late moment.

17. **Main Ganges Diara Traverse.**—So far only the river bed on the north of Faridpur, across to the Pabna side had been dealt with. The rest of the Ganges in the Province has been divided into two blocks, viz., that from the trijunction of north and south Bihar with Bengal to Rajshahi, and that between Rajshahi and Faridpur. It was the latter area which was traversed in the year under report. Its area is about 638 square miles.

The system of dealing with this area was modified at the request of the Settlement Department. The procedure was to traverse a strip on each side of the river, and to omit the area in which water flowed in the flood season. That area is to be traversed next year and it amounts to 138 square miles, against a hinterland area of 500 square miles.

Thus the Settlement Officer will deal with 638 square miles next year.

It is necessary for me to explain here that I consider the experiment one of danger, because when the staff next year is placed in the inside strip, it will almost certainly lose a great deal of time in picking up traverse marks on either side.

It is probable that a considerable amount of re-computations will be needed. When it is remembered that the field work and plotting of the inside area *as well as the Cadastral Survey* have to be done in the same year, it will be clear that any scheme that endangers the rapidity of completion of the Traverse work, endangers everything.

As I have been ordered to carry out this experiment, I have carried it out loyally, but from the beginning I have said that I considered it dangerous, and that I should have preferred to see the experiment carried out on a smaller scale.

Part III.—Miscellaneous Surveys.

18. **List of operations—**

Serial No.	Description of work.	Carried out by—	Complete or not.
1	Howrah Town Survey (50′ = 1 inch)	Bengal Miscellaneous Section.	No.
2	Calcutta Added Area 50 feet revision ...	Ditto ...	No.
3	Resurvey of Scheme V area Calcutta Improvement Trust (30′ = 1 inch).	Ditto ...	Yes.
4	Relaying of Calcutta Municipal Holdings for the public.	Ditto ...	No (Recurring work)
5	Surveys of Maniktola Municipality (50′ = 1 inch)...	Ditto ...	Almost completed.
6	Survey of Tollygunj Municipality	Ditto ...	Ditto.
7	Survey of South Suburban Municipal Area ...	Ditto ...	Ditto.
8	Survey of Cossipore-Chitpur Municipality ...	Ditto ...	Well in hand.
9	Kalimpong Town Survey (Scale 64″ = 1 mile) for the Board of Revenue.	Ditto ...	Almost completed.
10	Darjeeling Town Survey (Various scales) ...	Ditto ...	No.
11	Nepal-Darjeeling Boundary (Hill Section) ...	Ditto ...	Yes.
12	Khulna Disputes (Lots 4, 5, 6 and 7) ...	Ditto ...	Yes.
13	Erection of Instrument Checking Standards at Howrah, Alipur (24-Parganas), Hooghly and Bankura.	Ditto ...	Yes.
14	Erection of Instrument Checking Standards at Midnapore.	Ditto ...	No.
15	Crinoline Traversing in Jessore as a help to Main Traverse operation.	Ditto ...	Yes.
16	Traverse of 8 villages—Estates Nos. 27, 83 and 100, district Murshidabad (Scale 16″ = 1 mile).	Ditto ...	Yes.
17	Chandpur Municipal Drain Dispute (Comparative Map, etc.).	Ditto ...	Yes.
18	Jalpaiguri Tea Garden Surveys	Ditto ...	Practically.
19	Jalpaiguri-Bhutan Boundary relaying—Remainder of final mapping work. Scale 4″ = 1 mile.	Ditto ...	Almost completed.
20	Compiling Triangulation charts and data ...	Ditto ...	In hand.
21	Eastern Bengal State Railway experimental boundary survey.	Ditto ...	Traverse completed. Detail for next season.
22	399 copying jobs for the public	Ditto ...	Yes.
23	Comparative mapping miscellaneous (15 cases for Courts, etc.).	Ditto ...	Yes.
24	Comparative mapping main programme ...	Ditto and Bengal Traverse Party.	Yes, but recurs until main diara programme is completed.
25	Scattered Village Traverse in the 24-Parganas for the Collector Scale 16″ = 1 mile. (26 villages).	Bengal Traverse Party.	Yes.
26	Chur Sibpur Traverse (District Mymensingh) ...	Ditto ...	Yes.
27	Plotting of jurisdiction maps	Bengal Miscellaneous Section.	In progress.

CHAPTER III.

Drawing Office.

19. The present position of the Drawing Office may be described as a tangle induced by the divorce between Assam and Bengal Surveys, and the curtailment of the reproduction programme, on account of the war. But the next three months should see things put quite straight in the Department's offices at 79 and 87, Park Street, Calcutta.

In this report it will suffice to give mere details, and to leave full explanations till next year. But before giving them I wish to record my appreciation of the work done by Messrs. J. C. Nixon, I.C.S., and Damodar Rao

(Personal Assistant) regarding the readjustments which have had to be worked up connected with a tedious difficult case.

Numerical details of the outturn will be found in Appendix III of this report.

20. **Reproduction Section.**—The total output for Bengal was 735,416 pulls against 488,254 last year. Of these 664,917 were for the Settlement Department.

These figures include 2,760 pulls for miscellaneous work done in the emergent office started at 87, Park Street, Calcutta.

21. **Map issue and Copying Section.**—A sum of Rs. 6,148-4-2 was obtained from deposits made for copies of maps by the public. Other maps were copied for Government.

The work done was equivalent to the normal that was to be expected.

The copying was actually done in the offices of the Bengal Miscellaneous Section after November 1914, from when the section was transferred from Shillong to Calcutta.

22. **Thana Mapping Section.**—This section was transferred to Calcutta from Shillong in November 1914. Shortly afterwards Mr. Nixon, helped by Mr. A. H. Pyster, readjusted the section, and both did very good work in the readjustment. The work is now proceeding very well indeed and it will be reported upon in full next year.

23. **Record Section.**—The Bengal Records were removed from Shillong to Calcutta in November 1914. Apart from other maps there are now 38,634 Cadastral and other sheets racked in the office, of which 4,480 were received during this year.

24. **General Remarks.**—The total recoveries by book debit and cash for work dealt with in this chapter during the year, were Rs. 10,136 against Rs. 9,320 last year.

25. The main reproduction work was done in Shillong by Mr. A. B. Smart, who did very good work throughout the year.

CHAPTER IV.

Bengal Land Surveying School.

26. This school was established on the 2nd January 1914, and it is now possible to consider the effect of the training that the students trained in the first year received. A special report on that subject has been recently sent to Government and it will suffice to refer to one point only in this report.

27. The conclusion that I have come to is that there is no certainty that the Bengali has the makings of a practical surveyor on him. A number of *ex*-students were given Government appointments in the Bengal Traverse Party on trial in the cold weather, 1914-15. The majority was not a success.

This was partly due to the boys being raw, but I fear that it may also have been due to (*a*) preference for a supervising rather than a practical job and (*b*) objection to roughing it somewhat on even terms with up-country Indians.

It is a little early to form definite conclusions, but I suspect that the remarks made above contain much truth. If that suspicion is correct, then obviously the party at fault is not Government, but the pupils themselves.

28. Certain improvements in teaching methods were introduced during the year, and perhaps these may tend to more efficient passed students hereafter.

The School was in the charge of Mr. C. S. Kraal (since retired) and Mr. B. C. Gasper throughout the year under report.

CHAPTER V.

Imperial Standard Mapping Section, Bengal.

29. Three standard sheets covering an area of 494·02 square miles are practically ready, but are held up for certain references. They appertain to the districts of Bakarganj and Faridpur.

Portions of district Midnapore falling in a few standard sheets of the Province of Bihar and Orissa and comprising an area of 289·68 square miles were also published.

30. Thirty-six standard sheets are being compiled. They relate to the districts of Midnapore, Bakarganj, Faridpur, Dacca and Jalpaiguri (*vide* statement at the end of this Chapter).

31. An experiment was made in Standard Sheet No. 79 E.-15 to obtain the standard from Cadastral detail, as mapped on the 4″ scale Thana projected maps, now compiled by the Director of Surveys and the Director of Land Records for all areas cadastrally surveyed.

It is expected that the experiment will be successful, and that it will lead to the rapid removal of arrears, and to cheaper processes in the future.

32. The Bengal work was started late in the year and a temporary increase of establishment was sanctioned by the Surveyor-General, besides these, those draftsmen who could be spared from the Bihar and Orissa work were used. As the Bihar and Orissa work decreases, more men will be employed on the Bengal work and next year a large outturn may be expected.

33. I am greatly indebted to Major Coldstream, R.E., Superintendent, Map Publication Office, for his guidance and help in all techanical matters connected with this section of my Department.

Return of Imperial Standard Mapping Section for the year ending 30th September 1915.

Province.	Number of standards sent for publication.	Number of standards sent for publication and revision survey.	Sheets practically ready, but held up for certain references.	Sheets in various stages of compilation.	Sheets which remain to be taken up.
Bengal ...	*Nil.*	*Nil.*	79 F/13, 14	73 N/1, 2, 3, 4, 5	The remainder of the Province.
			79 J/3	73 N/6, 7, 8	
				73 O/1, 5, 9, 10, 13, 14	
				78 B/6, 8	
				79 E/15	
				79 I/4, 8, 9, 12	
				79 J/1, 2, 5, 6, 7, 8, 9	
				79 J/10, 11, 12, 13, 14, 15, 16	
				79 K/9	

CHAPTER VI.

Tour and services of officers.

34. **Tours.**—The amount of touring done was insufficient. The year was unusual, since for seven months of it I was on leave or special duty, and have kept consistently bad health.

35. **Services of officers.**—Captain A. H. Gwyn, I.A., Assistant Director was only with the Department for a very short time before he proceeded on service. For that period he did very good work.

Mr. J. C. Nixon, I.C.S., has been invaluable to me throughout the year, and I cannot speak too highly of his tact, energy and ability.

Messrs. S. O. Madras and C. S. Kraal, both retired finally during the year, after for over forty years' service each. Both are of the old type of surveyor, which retained its keenness for work in a wonderful way. These officers deserve special consideration from Government for their long and loyal services. Messrs. A. B. Smart (Drawing Office), C. A. O'Donel (Bengal Traverse Party) and P. F. Delaney (Bengal Miscellaneous Section) deserve special mention for good solid work.

Mr. B. C. Gasper (Sub-Deputy Collector) has done excellent work, and I greatly regret that circumstances have necessitated his being transferred to Assam.

Pandit Damodar Rao Dhulekar as usual has worked with energy and honesty. He never spares himself where Government interests are at stake.

Rai Sahib Kundan Lal has worked as he always does, despite his years. He is a surveyor of a type that is difficult to obtain now a days.

36. Although I have commended these officers highly, the remarks below refer to several of them, as well as to others in the Department. I find a tendency to specialization in the actual branch in which an officer is employed, and unexpected ignorance in other directions. From now onwards every officer with energy will have no excuse for not making himself efficient all round in the work of the Department, and in future I propose to limit praise to such officers as show a tendency to improve their knowledge all round.

As I am proceeding on leave out of India immediately, I am asking Mr. Nixon to sign this report.

I have the honour to be,

SIR,

Your most obedient servant,

J. C. NIXON,

for *Director of Surveys, Bengal.*

APPENDIX I—PART II.

Statement showing particulars of each Survey Operation undertaken by the Bengal Traverse Party during the year ending the 30th September 1915.

DESCRIPTION OF WORK.	Geographical limit of work.	Origin used.	Number of villages.	Linear miles of chaining.	Number of new theodolite stations.	Number of Azimuths observed.	Number of Azimuths used.	Number of Sub-Traverses.	Number of village circuits.	Number of Sub-Circuits.	Number of Pardas.	Number of main circuits.	MARKS USED (NUMBER).							AREA OF EACH THANA IN SQUARE MILES.			
													Oak stones.	Trijunction marks.	Galvanized cylinders.	Country stones.	Iron pegs.	Pegs.	Total number of stations at which theodolite was set up.				
1	2	3	4	5	6	7	8	9	10	11	11a	12	13	14	15	16	16a	16b	17	18	19	20	21
Mymensingh North (Diara) Block Traverse.	Lat. 24° 47′ 20″ to 25° 24′ 45″. Long. 89° 35′ 33″ to 89° 47′ 23″.	Lat. 24° 30′ 00″ Long. 90° 30′ 00″	163	797	2,564	29	20	149	168	8	...	1	2	64	213	...	...	2,285	3,198	(Mymensing North Diara block) 268†	...	...	...
District Noakhali Travers	Lat. 22° 08′ 30″ to 23° 10′ 30″. Long. 90° 42′ 30″ to 91° 29′ 00″.	Lat. 23° 30′ 00″ Long. 91° 00′ 00″	554	2,553	14,565	109	101	675	563	21	...	4	45	1,095	389	...	17	13,019	17,041	Thana Hatia 264†	Thana Lakshamipur 194	Thana Ramganj 123	Chars in Bay of Bengal 16
District Tippera Traverse	Lat. 23° 02′ 00″ to 23° 28′ 30″. Long. 90° 36′ 30″ to 91° 02′ 00″.		726	1,792	10,422	80	75	516	726	13	...	2	2	1,462	288	...	...	8,670	12,906	Thana Hajiganj 221	Thana Chandpur 148	...	...
District Jessore Traverse	Lat. 22° 55′ 00″ to 23° 42′ 30″. Long. 89° 15′ 00″ to 89° 50′ 00″.	Lat. 23° 30′ 00″ Long. 89° 30′ 00″	1,410	4,232	23,067	195	187	1,061	1,410	41	12	6	35	2,831	551	...	...	19,650	28,009	Thana Magura 308	Thana Mahammadpur 114	Thana Lohagara 143	Thana Barkalia 86
District Bankura (Forest) Square System Traverse.	Lat. 22° 37′ 30″ to 23° 37′ 30″. Long. 86° 37′ 30″ to 87° 50′ 00″.	Lat. 23° 00′ 00″ Long. 87° 30′ 00″	155	684	3,786	24	24	224	155	15	...	1	...	114	186	...	...	3,486	4,536	Thana Raypur forest block 193	...	...	...
District Bankura (upland) Traverse.			1,388	3,097	16,256	105	103	745	1,388	48	12	4	...	2,766	2,421	2,101	...	8,962	20,477	Thana Raypur 135	Thana Simlapal 119	Thana Khatra 343	Thana Chatna 175
Districts Rajshahi, Pabna, Nadia and Murshidabad Diara Traverse.	Lat. 23° 52′ 30″ to 24° 35′ 00″. Long. 88° 15′ 00″ to 89° 27′ 30″.	Lat. 24° 30′ 00″ Long. 88° 30′ 00″	627	2,618	11,300	75	70	611	627	19	...	1	39	947	797	...	17	9,500	13,774	District Rajshahi 40‡	District Nadia 268‡	District Pabna 65‡	District Murshidabad 127‡
District Midnapore Retraverse.	Lat. 21° 37′ 30″ to 22° 47′ 30″. Long. 87° 15′ 00″ to 88° 12′ 30″.	Lat. 22° 30′ 00″ Long. 87° 30′ 00″	534	1,526	9,859	22	20	317	534	...	15	...	...	1,556	71	...	...	8,232	11,597	Thana Sutahata 16	Thana Maslandpur. 1	Thana Nandigram 6	Thana Khajri 23
Districts Midnapore, Hooghly and Howrah Diara Traverse.	Lat. 21° 37′ 30″ to 22° 47′ 30″. Long. 87° 15′ 00″ to 88° 12′ 30″.		92	341	2,052	25	25	75	92	5	5	1	...	206	377	...	...	1,469	2,384	District Midnapur 36†	District Hooghly 8	District Howrah 56	...
District 24-Parganas Traverse.	Lat. 22° 07′ 00″ to 22° 17′ 30″. Long. 88° 05′ 00″ to 88° 22′ 30″.	Lat. 22° 30′ 00″ Long. 88° 30′ 00″	26	115	653	7	7	16	26	...	...	...	...	116	314	9	...	215	761	Thana Diamond-harbour 10	Thana Magrahât 1	Thana Kulpi 1	...

† Areas of main channel has been included.

‡ Areas traversed to present banks of Ganges and not to district boundaries.

Statement showing particulars of each survey operation undertaken by the Bengal Traverse Party during the year ending the 30th September 1915.

DESCRIPTION OF WORK.	AREA OF EACH THANAS IN SQUARE MILES—*concluded.*						Total area dealt with in square miles.	Area for Cadastral (same season) in square miles.	Area for Traverse next season in square miles.	Number of 1€″ sheets.	Number of 64″ sheets.	Number of G. T. connections.	Average error in feet per mile.	Demarcation by inhabitants (Good or bad).	Magnetic declination.	Traverse data copied for Settlement officer (date).	Maps used to guide Surveyor (Dates only).	Health of establishment.	Work started on—	Work completed on—	REMARKS.
	22	23	23*a*	23*b*	23*c*	23*d*	24	25	26	27	27*a*	28	29	30	31	32	33	34	35	36	37
Mymensingh North (Diara) Block Traverse.	...	...	..	...	...	...	268†	268	...	492	...	2 (*a*)	14·1	Nil	0°45′00″E.	Not yet	4″ R. S. maps of 1852-57.	Good	10-10-1914	31-1-1915	Longitudinal correction has been applied.
District Noakhali Traverse	Chars in Fani River 9†	...	...	...	...	...	603*	37	...	1,289	...	2 (*b*)	14·0	Nil	0°30′00″E.	Do. ...	4″ R. S. maps of 1862-67.	Do.	10-11-1914	5-5-1915	Ditto.
District Tippera Traverse	...	...	...	...	...	...	369	Nil	700	956	...	3 (*c*)	14·1	Nil	0°30′00″E.	Do. ...	4″ R. S. maps of 1861-64.	Do.	10-11-1914	5-5-1915	Ditto.
District Jessore Traverse ...	Thana Narail 211	Thana Bagharpara 106	...	...	...	...	968	...	...	...	...	7 (*d*)	10·6	Nil	0°30′00″E.	Do. ...	4″ R. S. maps of 1854-58.	Fair ...	10-11-1914	10-5-1915	Ditto.
District Bankura (Forest) Square System Traverse.	...	...	...	...	...	...	193	...	...	...	...	1 (*e*)	7·4	Nil	0°30′00″E.	Do. ...	4″ R. S. maps of 1853-56.	Good	10-11-1914	10-4-1915	Ditto.
District Bankura (Upland) Traverse.	...	...	...	...	...	...	772	...	...	...	...	4 (*f*)									
Districts Rajshahi, Pabna, Nadia and Murshidabad (Diara) Traverse.	...	...	...	...	...	...	500§	...	500	...	22	3 (*g*)	5·9	Nil	0°45′00″E.	Do. ...	4″ R. S. maps of 1865-69.	Fair ...	10-11-1914	15-5-1915	Ditto.
District Midnapore Retraverse.	Thana Bhagwanpur 95	Thana Pataspur 29	Thana Egra 34	Thana Contai 5†	Thana Ramnagar 42	Scattered in Thanas Danton, Naraingarh and Kharagpur 4	301	...	50 (Approximate).	695	...	...	...	Nil	0°15′00″E.	Do. ...	4″ R. S. maps of 1872-74.	Good	10-11-1914	15-5-1915	Longitudinal correction has not been applied.
Districts Midnapore, Hooghly and Howrah (Diara) Traverse.	...	...	...	...	...	...	100†	100	...	121	...	1 (*h*)	...	Nil	0°15′00″E.	Do. ...	Ditto ...	Do.	15-2-1915	3-5-1915	Ditto.
District 24-Parganas Traverse.	...	...	...	...	...	...	12	12	...	31		...	...	Nil	0°30′00″E.	21-4-1915	4″ R. S. maps of 1846-48.	Do.	15-12-1914	20-4-1915	Longitudinal correction has been applied.

(*a*) Boral XLI and Kanchipara XL (in Brahmaputra series).
(*b*) Lakhinagar XXXII and Bashakpur XXXIV (i. E. Cal. Longitudinal and Eastern Frontier series).
(*c*) Gupti XXXIII, Noagaon XXXV and Hariour XXXI (i. E. Cal. Longitudinal and Eastern Frontier series).
(*d*) Basantia XIII, Ballakandi XV, Babupur XVI, Daulatpur XVII, Maheshpur XX, Subunara XIV and Saidpur III (in F. Cal. Longitudinal and Brahmaputra series).
(*e*) Tura III (in South Malauncha series).
(*f*) Susinia LXV, Keema IV, Jalhari I and Kundaba II (in Cal. Longitudinal and South Malauncha series)
(*g*) Jitpur XVII, Murcha XIX and Sisa XV (in Cal. Meridional series).
(*h*) Natsal III (in East coast series).
* Excluding River Blocks. † Area of main channel has been included.

APPENDIX I—PART B.

Statement of outturn and cost rates for the year ending the 31st September 1915.

DISTRICT AND TRACT.	Description of work.	Estimated area in square miles to be dealt with.	Year of inception of operation.	AREA SURVEYED IN SQUARE MILES.		COST RATE PER SQUARE MILE.		Balance of area in square miles remaining for survey.	Estimated cost of completing area in column 9.	Estimated final cost rate per square mile.
				During the year under report.	Total including previous years.	During the year under report.	From commencement to end of year under report.			
1	2	3	4	5	6	7	8	9	10	11
					District Operations.				Rs.	
Mymensingh (North Diara Block).	Traverse ...	6,332	1907	268°	6,786(*a*)	43	45	Nil	...	45
Noakhali	Do. ...	3,201	1913	603°	1,437(*b*)	51	52	Nil	...	...
Tippera	Do. ...		1914	369°	369			1,395	87,465	62·7
Jessore	Do. ...	2,900	1914	968°	968	50	50	1,932	87,713	45·4
Bankura	Do. ...	2,621	1914	965°	965	43	43	1,656	67,896	41
Rajshahi, (Pabna, Nadia and Murshidabad Diara).	Do. ...	2,617	1910	500°	2,990(*c*)	57	60	640	36,200	55
Midnapore Retraverse ...	Do. ...	4,133	1910	301°	4,419(*d*)	51	36	50(*e*) (Approximate).	2,750	55
Midnapur, Hooghly and Howrah Diara.	Do. ...		1914	100°						
Total ...	.....	...	...	4,074	...	...	...	...	...	...

(*a*) Includes upland area and Mymensingh Tippera Diara.
(*b*) Excluding Large River blocks.
(*c*) Includes upland areas.
(*d*) Including area retraversed and Rupnarain Diara.
(*e*) Additional villages for Retraverse in Season 1915-16 and Chars.
° Correct figures obtained according to Traverse.

Minor Operations.

NOTE.—Information regarding minor operations cannot be given, as petty jobs are mostly of relaying character and the work is in linear miles only.

APPENDIX II.

Statement of sums expended during the year ending 30th September 1915.

District and Tract.	Description of Work.	Expenditure incurred during the year under report.				Total expenditure from inception to end of the year under report.			
		Direct charges including share of general section if any.	Share of control.	All book-debit charges other than share of control.	Total.	Direct charges including share of general section if any.	Share of control.	All book-debit charges other than share of control.	Total.
1	2	3	4	5	6	7	8	9	10
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
District Operations.									
Bankura	Traverse	26,482	3,067	1,402	30,951	26,482	3,067	1,402	30,951
Do	Square Traversing ...	9,269	1,108	485	10,862	9,269	1,108	485	10,862
Jessore	Traverse	39,053	4,570	2,130	45,753	39,053	4,570	2,130	45,753
Noakhali	Ditto	25,581	2,968	1,397	29,936	78,760	11,368	4,025	94,153
Tipperah	Ditto	16,576	2,057	972	19,599				
Rajshahi	Ditto	1,163	138	57	1,364	1,49,891	Not available.		
Do. Diara	Ditto	6,691	743	357	7,791	6,691	743	357	7,791
Pabna Diara	Ditto	4,001	479	220	4,700	4,001	479	220	4,700
Murshidabad Diara	Ditto	5,971	714	326	7,011	5,971	714	326	7,011
Nadia ,, ...	Ditto	6,622	751	375	7,748	6,622	751	375	7,748
Mymensingh ,, ...	Ditto	528	63	25	616	2,95,176	Not available.		
Ditto ,, ...	Reproduction	6,294	702	1,715	8,711	Not available.			
Ditto ,, ...	Traverse	4,527	541	221	5,289	4,527	541	221	5,289
Bogra ,, ...	Ditto	2,393	286	118	2,797	2,393	286	118	2,797
Rangpur ,, ...	Ditto	2,393	286	118	2,797	2,393	286	118	2,797
Midnapur ,, ...	Ditto	14,969	1,809	849	18,627	1,55,918	Not available.		
Ditto ,, ...	Reproduction	4,896	585	1,380	6,861	Not available.			
Ditto ,, ...	Traverse	1,626	194	101	1,921	1,626	194	101	1,921
Howrah ,, ...	Ditto	1,008	120	64	1,192	1,008	120	64	1,192
Hooghly ,, ...	Ditto	408	48	26	482	408	48	26	482
Dacca	Ditto	318	38	32	388	1,09,582	Not available.		
Do.	Reproduction	19,720	2,078	5,373	27,171	Not available.			
Jalpaiguri	Ditto	4,229	505	1,154	5,888	Ditto.			
Faridpur	Ditto	2,918	348	779	4,045	Ditto.			
Jessore—Crinoline Traversing	Traverse	2,600	310	75	2,985	2,600	310	75	2,985
Minor Operations.									
24-Parganas—Kamarpole Estate Survey ...	Traverse	632	76	5	713	632	76	5	713
Tippera—Translation of records of Comilla Town Survey.	Records	75	...	3	78	10,649	Not available.		
Rajshahi—Training of Police Officers at Sarda Police Training College.	.....	200	...	2	202	524	...	2	526
Mymensingh—1" Jurisdiction maps	Mapping	730	87	9	826	2,958	Not available.		
Jalpaiguri— Ditto	Ditto	1,043	124	9	1,176	3,613	Ditto.		
Dacca— Ditto	Ditto	226	27	1	254	1,407	232	1	1,640
Rajshahi— Ditto	Ditto	216	25	2	243	1,677	Not available.		
Midnapore— Ditto	Ditto	508	67	6	581	822	122	6	950
Noakhali— Ditto	Ditto	245	29	3	277	245	29	3	277
Mymensingh— Diara comparative maps ...	Ditto	357	44	6	407	2,156	Not available.		
Dacca—Tipperah Ditto	Ditto	825	100	20	955	3,415	548	155	4,118
Pabna— Ditto	Ditto	25	3	4	32	1,848	Not available.		
Rajshahi—Preparation of a comparative map in connection with Suit No. 1271 of 1911 for the Munsif of Rampur Boalia (Rampore Boalia comparative map).	Ditto	11	2	...	16	34	7	...	41
Noakhali—Diara comparative maps	Ditto	194	23	1	218	194	23	1	218
Darjeeling—Resurvey on 16" scale of a portion of Darjeeling Municipality found incorrect.	Traverse and detail ...	742	88	9	839	442	88	9	839
Darjeeling—Revision Survey of Darjeeling Municipality on old maps and data.	Detail	2,766	331	86	3,183	2,766	331	86	3,183
Darjeeling—Survey of boundary between Darjeeling Nepal Hill Ridge.	Traverse and detail ...	2,135	255	21	2,411	2,135	255	21	2,411
Darjeeling—Traverse and detail survey of Kalimpong Hill Ridge.	Ditto ...	10,738	1,204	77	12,019	10,738	1,204	77	12,019
Jalpaiguri—Tea Garden Survey	Ditto ...	1,178	140	84	1,402	36,583	Not available.		
Ditto —Survey of Tea Gardens of Bamandanga and Tondu.	Ditto ...	991	118	26	1,135	991	118	26	1,135

APPENDIX II—*concld.*

Statement of sums expended during the year ending 30th September 1915—concld.

District and Tract.	Description of Work.	Expenditure incurred during the year under report.				Total expenditure from inception to end of the year under report.			
		Direct charge including share of general section if any.	Share of control.	All book-debit charges other than share of control.	Total.	Direct charge, including share of general section, if any.	Share of control.	All book-debit charges other than share of control.	Total.
1	2	3	4	5	6	7	8	9	10
Minor Operations—concld.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Howrah Town Survey	Traverse and detail ...	36,970	4,221	1,229	42,420	58,631	7,731	3,098	68,860
24-Parganas—Revision Survey of Calcutta added area.	Detail	16,597	1,884	761	19,242	27,750	3,743	1,116	32,609
Ditto —Scheme No. 5—30ft. Survey ...	Traverse and detail ...	5,481	655	122	6,258	5,481	655	122	6,258
Howrah—Survey charges in connection with Damodar River dispute case.	Ditto ...	60	...	8	68	550	92	8	650
Khulna—Dispute case	Ditto ...	1,430	171	36	1,637	1,430	171	36	1,637
Mymensingh—Brahmanjani dispute case ...	Mapping	293	35	3	331	293	35	3	331
Tippera—Chandpur Municipal dispute case ...	Traverse and detail ...	193	20	9	222	193	20	9	222
Murshidabad—Traverse survey of 8 villages ...	Traverse	588	70	47	705	588	70	47	705
Midnapore—Standard checking instruments ...	.....	68	8	...	76	68	8	...	76
24-Parganas—Brief History of large scale Survey in Calcutta and its neighbourhood.	.. ...	681	...	...	681	681	...	...	681
Preparation of map of River Ganges from Rampur Boalia to Rajmahal by Revenue diara maps for Engineer-in-Chief Lower, Ganges Bridge.	Mapping	175	20	...	195	175	20	...	195
		3,274	...	...	3,274	7,731	...	...	7,731
Binding charges of copies of Atlas of Rennell's Maps.									
Triangulation Charts	.....	200	23	...	223	200	23	...	223
Murshidabad and Rajshahi diara and Midnapur Zamindari Dispute case.	Traverse	500	59	...	559	2,940	Not available.		
24-Parganas—Demarcation of revenue holdings and preparation of Revenue maps Cossipore-Chitpur Municipality.	Demarcation	4,473	534	28	5,035	8,330	1,202	28	9,560
24-Parganas—Preparation of Revenue maps of sub-division 'S' and portion of Sub-division, 'T' and 'U', grand division 6 Tollygunj.	Mapping	27	3	...	30	77	12	...	89
24-Parganas—Preparation of Revenue maps in Maniktolia.	Ditto	1,486	177	4	1,667	1,486	177	4	1,667
24 Parganas—Survey for Calcutta Improvement Trust.	Traverse and detail ...	2,940	351	...	3,291	1,29,502	Not available.		
24-Parganas—Fair mapping for Tollygunj, South Suburbans and Cossipore-Chitpore.	Mapping	6,507	770	94	7,371	6,507	770	94	7,371
24-Parganas—Colouring of miscellaneous maps for Calcutta Improvement Trust.	Ditto	136	16	...	152	336	Not available.		
24-Parganas—Colouring of Tollygunj maps ...	Ditto	422	50	8	480	422	50	8	480
Bengal—Imperial Standard Mapping section ...	Ditto	4,243	...	...	4,243	4,243	...	...	4,243
Tippera—Comilla Survey School	School	29,529	...	89	29,618	67,446	...	285	67,731
Bengal—Record Section	Records	7,668	917	385	8,970	35,625	6,989	385	42,999
Do. Thana Mapping Section	Mapping	13,295	1,569	554	15,418	44,445	7,478	983	52,906
Do. Copying Section	Ditto	460	55	53	568	3,801	642	53	4,496
Drawing Office, Bengal and Assam—									
Bakarganj—Reproduction of village maps ...	Reproduction	344	42	96	482	344	42	96	482
Bankura— Ditto miscellaneous maps	Ditto	13	2	3	18	13	2	3	18
Burdwan— Ditto village maps ...	Ditto	62	7	16	85	62	7	16	85
Calcutta— Ditto Municipal maps ...	Ditto	2,485	287	653	3,425	3,368	436	687	4,491
Chittagong— Ditto village maps ...	Ditto	365	41	97	503	Not available.			
Darjeeling— Ditto miscellaneous maps	Ditto	17	3	3	23	129	22	7	158
Dinajpur— Ditto ditto ...	Ditto	3	...	...	3	3	...	...	3
Hooghly— Ditto village maps ...	Ditto	161	18	43	222	161	18	43	222
Howrah— Ditto miscellaneous maps	Ditto	25	3	5	33	25	3	5	33
Jessore— Ditto village maps ...	Ditto	431	51	127	609	431	51	127	609
Khulna— Ditto ditto ...	Ditto	220	25	59	304	220	25	59	304
Murshidabad— Ditto miscellaneous maps	Ditto	3	...	...	3	3	...	...	3
Nadia— Ditto village maps ...	Ditto	51	6	13	70	51	6	13	70
Noakhali— Ditto ditto ...	Ditto	294	35	80	409	294	35	80	409
Pabna— Ditto miscellaneous maps	Ditto	28	3	5	36	28	3	5	36
Rajshahi— Ditto ditto ...	Ditto	1	...	...	1	1,462	Not available.		
Rangpur— Ditto ditto ...	Ditto	44	5	10	59	44	5	10	59
Tippera— Ditto ditto ...	Ditto	94	11	24	129	619	101	45	765
Jalpaiguri—Tea Reproduction—Grants ...	Ditto	313	37	85	435	313	37	85	435
Bengal—Miscellaneous departmental work ...	Ditto	1,830	218	445	2,493	1,830	218	445	2,493
	Total ...	3,79,566	39,643	25,319	4,44,528	...	...	...	...

APPEN

DRAWING OFFICE OUTTURN,

For the year ending the

REPRODUCTION

NAMES OF DISTRICTS ETC.	VILLAGE MAPS.							Miscellaneous.		
	Previously supplied.		Supplied during the year.		Total to date.					
	Sheets or maps.	Copies.	Sheets or maps.	Copies.	Sheets or maps.	Copies.	Complete or incomplete.	Previously supplied.	Supplied during the year.	Total to date.
1	2	3	4	5	6	7	8	9	10	11
BENGAL.										
Bakarganj	765	68,153	75	4,698	840	72,851	Incomplete	1,493	709	2,202
Bankura	...	...	...	...	...	...	...	...	162	162
Birbhum	229	30,388	...	...	229	30,388	...	...	...	...
Bogra	9	400	...	...	9	400	...	29	...	29
Burdwan	...	...	25	865	25	865	Complete	400	74	474
Calcutta	...	...	...	...	...	...	...	15,063	25,175	40,238
Chittagong	9,274	54,888	117	5,850	9,391	60,738	Incomplete	1,128	450	1,578
Dacca	1,359	2,01,128	2,162	3,38,996	3,521	5,40,124	Ditto ...	1,955	2,260	4,215
Darjeeling	...	...	...	...	...	...	...	1,500	300	1,800
Dinajpur	52	5,163	...	...	52	5,163	...	195	...	195
Faridpur	6,041	6,32,243	984	46,785	7,025	6,79,028	Incomplete	919	20	939
Hooghly	123	6,403	25	757	148	7,160	Complete	...	...	...
Howrah	...	...	...	...	...	...	...	450	608	1,058
Jalpaiguri	1,316	1,54,622	1,667	78,501	2,983	2,33,123	Complete	7,333	306	7,639
Jessore	...	...	41	4,300	41	4,300	Ditto ...	...	732	732
Khulna	33	132	33	3,670	66	3,802	...	...	15	15
Malda	40	1,000	...	...	40	1,000	...	...	...	...
Midnapore	5,295	36,656	3,631	87,209	8,926	1,23,865	Incomplete	75	890	965
Murshidabad	29	104	...	...	29	104	...	255	...	255
Mymensingh	4,270	3,16,659	1,116	1,08,728	5,386	4,25,387	Incomplete	1,737	50	1,787
Nadia	...	...	4	825	4	825	Complete	...	6	6
Noakhali	74	4,736	22	3,385	96	8,121	Incomplete	140	900	1,040
Pabna	42	3,960	...	...	42	3,960	...	...	...	...
Purnea	...	...	...	...	...	...	...	...	...	...
Rajshahi	24	5,090	...	...	24	5,090	...	1,082	18	1,100
Rangpur	...	...	...	...	...	...	...	10	750	760
Tippera	26	1,540	10	610	36	2,250	Complete	7,776	412	8,188
24-Parganas	...	...	...	...	...	...	...	450	144	594
Cooch-Behar	...	...	...	...	...	...	...	2,655	50	2,705
Bhagalpur	...	...	...	...	...	...	...	...	...	...
Ganges Diara	...	...	...	...	...	...	...	...	...	...
Sikkim	...	...	...	...	...	...	...	...	...	...
Hijilee	...	...	...	...	...	...	...	...	...	...
Bengal, Bihar and Orissa	...	...	...	...	...	...	...	...	234	234
Bengal Presidency	...	...	...	...	...	...	...	...	450	450
Maps reproduced for Mr. Shoebridge.	...	...	...	...	...	...	...	...	90	90
Total ...	28,971	15,23,265	9,912	6,85,179	38,883	22,08,444	...	44,645	34,805	79,450

NOTE.—The figures in columns 27, 30, 33.

DIX III.

CALCUTTA AND SHILLONG.

30th September 1915.

SECTION.

Triangulation charts.			Jurisdiction maps 1″ = 1 mile.						Jurisdiction maps 4″ = 1 mile.			District maps.		
			Preliminary.			Final.								
Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
50	52	102	2,590	...	2,590	...	...	...	...	...	...	56	500	556
...	...	...	1,020	75	1,095	...	...	...	...	...	...	50	...	50
...	...	...	140	8	148	...	...	...	...	...	...	...	1	1
...	...	...	120	16	136	...	...	...	...	...	...	56	...	56
...	52	52	973	85	1,058	...	...	...	...	...	...	50	...	50
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	56	...	56
50	52	102	2,150	...	2,150	...	...	...	...	...	...	56	712	768
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	52	52	300	...	300	...	...	...	...	600	600	56	...	56
50	52	102	705	...	705	...	150	150	460	3,040	3,500	56	500	556
...	52	52	830	65	895	...	1,800	1,800	...	...	...	50	125	175
...	72	72	720	55	775	...	...	...	...	...	...	50	...	50
...	52	52	...	...	...	...	...	...	...	..	...	31	...	31
...	52	52	1,060	85	1,145	...	2,400	2,400	...	...	...	50	...	50
...	50	50	1,430	115	1,545	...	...	...	...	...	...	50	...	50
50	...	50	130	...	130	...	...	...	...	...	...	56	...	56
...	52	52	370	...	370	...	...	...	...	...	...	50	500	550
...	52	52	280	12	292	...	...	...	...	...	...	50	...	50
50	52	102	540	...	540	...	...	...	...	...	...	56	500	556
...	...	...	1,210	95	1,305	...	...	...	...	...	...	50	...	50
...	52	52	240	60	300	...	750	750	...	...	...	56	...	56
...	52	52	156	16	172	...	...	...	...	...	...	56	500	556
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
50	...	50	614	22	636	...	...	...	...	...	...	56	...	56
...	...	...	...	...	...	...	...	...	...	...	...	56	...	56
...	52	52	...	28	28	...	...	...	...	...	...	56	500	556
...	52	52	1,980	165	2,145	...	1,050	1,050	...	...	...	50	...	50
50	...	50	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
350	902	1,252	24,558	902	25,460	...	6,150	6,150	460	13,640	4,100	1,309	3,838	5,147

38, 39, 42 and 45 are received ones.

APPENDIX

DRAWING OFFICE OUTTURN,

For the year ending the

MAP RECORD

NAMES OF DISTRICTS ETC.	ORIGINAL CADASTRAL AND TOPO MAPS.			REVENUE DIARA AND TOPO MAPS.						TRAVERSE VOLUMES		
	Received.			Received.			Issued.			Received.		
	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	To al.
	Sheets.	Sheets.	Sheets.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.
	27	28	29	30	31	32	33	34	35	36	37	38
BENGAL.												
Bakarganj	5,916	100	6,016	12	...	12	...	3	3	67	...	67
Bankura	506	8	514	4	...	4	...	2	2	7	...	7
Birbhum	314	...	314	51	...	51	...	7	7	4	...	4
Bogra	293	...	293	14	...	14	...	5	5	5	...	5
Burdwan	154	...	154	6	...	6	...	4	4	22	7	29
Calcutta	...	869	869	...	...	...	...	...	...	...	...	...
Chittagong	3,553	...	3,553	20	...	20	1	...	1	42	...	42
Dacca	1,124	491	1,615	5	...	5	3	1	4	17	32	49
Darjeeling	500	...	500	11	...	11	...	...	...	13	...	13
Dinajpur	994	...	994	19	...	19	...	5	5	34	2	36
Faridpur	5,479	205	5,684	8	...	8	...	1	1	39	...	39
Hooghly	215	...	215	15	...	15	...	4	4	21	...	21
Howrah	217	...	217	...	...	...	...	...	...	2	...	2
Jalpaiguri	3,331	729	4,060	13	...	13	3	...	3	40	...	40
Jessore	204	...	204	16	...	16	...	10	10	23	...	23
Khulna	429	...	429	2	...	2	...	...	...	12	...	12
Malda	173	...	173	25	...	25	8	...	8	6	...	6
Midnapore	3,557	1,397	4,954	17	...	17	...	...	...	74	...	74
Murshidabad	255	...	255	30	...	30	4	2	6	3	...	3
Mymensingh	3,945	365	4,310	60	...	60	45	...	45	43	4	47
Nadia	1	...	1	27	...	27	...	15	15	3	1	4
Noakhali	692	...	692	5	...	5	4	...	4	14	2	16
Pabna	34	270	304	27	...	27	26	...	26	2	6	8
Purnea	...	...	...	3	...	3	...	3	3	...	...	...
Rajshahi	7	...	7	62	...	62	61	...	61	4	...	4
Rangpur	...	...	...	13	...	13	6	3	9	16	4	20
Tipperah	1,843	45	1,888	18	...	18	3	...	3	29	4	33
24-Parganas	422	...	422	43	...	43	...	5	5	17	...	17
Cooch-Behar	...	...	...	6	...	6	...	...	...	14	...	14
Bhagalpur	...	...	...	4	...	4	...	4	4	...	...	...
Ganges Diara	...	...	...	24	...	24	11	...	11	41	...	41
Sikkim	...	...	...	...	...	...	...	...	...	1	...	1
Hijilee	...	...	...	8	...	8	...	...	...	...	...	...
Bengal Bihar and Orissa	...	...	...	...	...	...	...	...	...	...	...	...
Bengal Presidency	...	...	...	...	...	...	...	...	...	...	...	...
Maps reproduced for Mr. Shoeridge.	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	34,154	4,480	38,634	568	...	568	175	74	249	615	62	677

NOTE—The figures in columns 27, 30, 33,

III—*concluded.*

CALCUTTA AND SHILLONG—*concluded.*

30th September 1915—concluded.

AND ISSUE SECTION.

OF ALL KINDS.			FIELD BOOKS.			Calcutta survey fair maps.			Thana trijunction, Index and Traverse plots.			Traces for reproduction.		
Issued.			Received.											
Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.
Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.
39	40	41	42	43	44	45	46	47	48	49	50	51	52	53
17	12	29	63	...	63	...	...	...	73	...	73	2,372	...	2,372
6	...	6	...	...	...	...	...	...	17	...	17	...	...	.....
18	...	18	5	...	5	...	...	...	22	...	22	...	...	.....
...	...	...	3	...	3	...	...	...	...	...	...	181	...	181
2	...	2	34	...	34	...	...	...	5	...	5	...	...	.....
...	...	...	...	...	...	1,123	218	1,341	...	...	...	...	...	.....
...	1	1	60	...	60	...	...	...	20	...	20	3,374	60	3,434
6	8	14	75	33	108	...	...	...	77	...	77	...	...	.....
1	...	1	20	...	20	...	...	...	7	...	7	212	...	212
...	...	...	4	...	4	...	...	...	...	...	...	...	...	.....
3	7	10	37	...	37	...	...	...	205	...	205	...	...	.....
...	10	10	68	...	68	...	...	...	9	...	9	...	...	.....
1	...	1	2	...	2	...	...	...	2	...	2	...	...	.....
8	...	8	90	...	90	...	...	...	80	161	241	...	...	.....
19	...	19	2	...	2	...	...	...	...	...	...	...	...	.....
...	...	...	29	...	29	...	...	...	95	...	95	...	...	.....
1	...	1	3	...	3	...	...	...	10	...	10	...	...	.....
...	44	44	143	...	143	...	...	...	248	...	248	176	...	176
...	2	2	...	...	...	...	...	...	17	...	17	266	...	266
27	...	27	39	24	63	...	...	...	90	...	90	...	...	.....
3	...	3	1	...	1	...	...	...	11	...	11	...	...	.....
6	...	6	3	...	3	...	...	...	...	...	...	90	...	90
...	...	...	1	2	3	...	...	...	...	...	...	...	...	.....
...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
2	...	2	1	...	1	...	...	...	...	...	...	...	...	.....
1	8	9	4	5	9	...	...	...	31	...	31	...	...	.....
13	...	13	18	3	21	...	...	...	...	...	...	...	...	.....
11	...	11	28	...	28	...	...	...	54	...	54	...	...	.....
...	...	...	23	...	23	...	...	...	...	...	...	...	...	.....
...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
11	...	11	49	...	49	...	...	...	2	...	2	...	...	.....
...	...	...	2	...	2	...	...	...	...	...	...	...	...	.....
...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
156	92	248	807	67	874	1,123	218	1,341	1,075	161	1,236	6,671	60	6,731

36, 39, 42 and 45 are received ones.

APPENDIX IV.

Statement showing Traverse Survey and reproduction of maps of the Districts under Settlement.

Name of District.	Traverse Survey.							Reproduction.							Remarks for increase or decrease in expenditure
	Total area of the district estimated for Survey.	Area completed up to previous year.	Estimated programme for the year under report.	Area completed during the year under report.	Remaining.	Estimated cost for the year.	Actual cost for the year (including year control).	Forecast by the Director of Land Records, Bengal. Number of sheets.	Forecast by the Director of Land Records, Bengal. Number of pulls.	Number of sheets received.	Actual number of copies reproduced.	Estimated cost for the year.	Actual expenditure for the year (including control).	Difference between columns (9) and (11).	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Sq. miles.	Sq. miles	Sq. miles.	Sq. miles.	Sq. miles.	Rs.	Rs.					Rs.	Rs.		
Mymensingh	6,332	(a) 6,518	(a) 241	(a) 268	...	25,058	14,499	2,000	2,00,000	1,029	1,06,728	14,772	8,711	—971	
Districts Noakhali and Tippera.	3,201	834	800	972	1,395	45,160	42,535	...	...	...	...	...	...	...	
District Jessore	2,900	...	966	968	1,932	45,423	46,738	...	...	...	...	..	...	...	
,, Bankura	2,621	...	968	965	1,656	43,480	41,813	...	...	...	...	...	...	...	
,, Rajshahi	2,617	(a) 2,490	(a) 500	(a) 500	(a) 640	28,729	28,614	1,003	1,00,300	84	...	...	...	—919	
,, Midnapur	4,133	(b) 4,018	(b) 400	(b) 401	(b) 50	15,144	20,548	3,936	55,625	4,449	87,209	8,247	6,861	+513	
,, Faridpur	...	...	...	...	...	...	...	583	87,450	420	46,785	4,067	4,045	—534	
,, Dacca	...	...	...	...	...	...	...	1,890	2,83,500	1,844	3,38,996	21,216	27,171	—46	
,, Jalpaiguri	...	...	...	...	...	...	...	...	...	...	78,501	4,426	5,888	...	

(a) Includes Diara area.
(b) Includes area retraversed and Rupnarain Diara.

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REPORT

ON

SURVEY AND SETTLEMENT OPERATIONS

IN BENGAL

FOR THE YEAR ENDING

30TH SEPTEMBER 1915.

CALCUTTA:

THE BENGAL SECRETARIAT BOOK DEPOT.

1916.

[Maximum limit 30 pages.]

REPORT

OF THE

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS, BENGAL.

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DEPARTMENT OF LAND RECORDS, BENGAL.

No. 1956.

FROM M. C. MCALPIN, ESQ., I.C.S.,

Director of the Department of Land Records, Bengal.

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,

REVENUE DEPARTMENT.

Dated Calcutta, the 26th January 1916.

SIR,

I HAVE the honour to submit the following report on the Survey and Settlement operations conducted in the Presidency of Bengal under the supervision of this Department during the year ending the 30th September 1915. The delay in submission, which is entirely due to the examination and reconciliation of the financial figures, is regretted.

Introductory.

2. Survey and Settlement operations under the supervision of this Department were in progress in 19 districts and comprised 7 major operations financed from Imperial funds and 14 minor operations. The new major operation was the Survey and Settlement of the districts of Tippera and Noakhali jointly, where the cadastral survey of the first block in Noakhali was taken up in the year under review. Major operations were continued in the districts of Jalpaiguri, Faridpur, Dacca, Mymensingh, Rajshahi and Midnapore. The Jalpaiguri and Faridpur settlements are in their last stages and are about to be closed. Minor operations were scattered and lay in the districts of Burdwan, Murshidabad, Bakarganj, Faridpur, Noakhali, Bankura, Hooghly, 24-Parganas, Nadia, Jessore, Khulna, Malda and Tippera. In the first three districts there were whole-time special officers in charge of the settlements, while in Faridpur, Tippera and Noakhali the minor operations were carried on under the control of the District Settlement officers. In the remaining districts there was no special officer but an officer of the general line in each district was in charge of the settlement work in addition to his own duties. It was, however, decided that the work in the 24-Parganas should be placed in charge of a special officer and that the officer in charge of the settlements in Burdwan should also undertake the work in Bankura. There was also a special officer in charge of the settlements in the Mokimpur estate in the districts of Jessore and Khulna. This special office has since been closed.

3. The area cadastrally surveyed in major operations was 3,602 square miles and preliminary records were written for 3,598 square miles against 3,262 and 3,360 respectively of the previous year. Records were attested in 3,234 square miles and finally published in 1,866 square miles. The previous year's outturn were 3,735 and 4,492 square miles respectively. In minor operations 55 square miles were cadastrally surveyed, 69 square miles attested and 109 square miles finally published. The total area, of which a record-of-rights has now been completed in the Presidency, is 17,027 square miles.

PART I.

Major operations.

Dacca.

4. Mr. F. D. Ascoli, I.C.S., was in charge throughout the year until he went on privilege leave on the 13th August last. Mr. F. W. Robertson, I.C.S., acted for him during the remainder of the year.

5. **Progress.**—The programme for the year comprised the completion of attestation, objections, *jamabandi* and statistics for the whole operations. This, the major portion of the programme, was successfully completed and presented fewer difficulties than have ordinarily fallen to the lot of this settlement. In the more important later stages the following figures compare programme and progress :—

	During the year.		Up to Date.	
	Programme.	Progress.	Programme.	Progress.
16″ Maps	718	821	2,546	1,769
Printing	910	919	1,620	1,100
Recovery	790	535	1,165	565
Case-work	600	60	975	60

The arrears in mapping is nominal as all the maps are complete except for mauzas affected by land-revenue proceedings. Printing is in arrears owing to the late arrival of the settlement presses, but the arrears are now being rapidly overtaken. Recovery was affected by this as well as by the jute crisis, whilst case-work was stopped under orders of Government in view of the reduction of the budget.

6. **Expenditure.**—In all branches of work undertaken during the year there have been savings, as the following figures indicate :—

Branch of work.	Estimate.		Actuals.		Standard cost rate.
	Expenditure.	Cost rate.	Expenditure.	Cost rate.	
	Rs.	Rs.	Rs.	Rs.	Rs.
From attestation to recovery and case-work.	2,06,343	266*	1,64,603	192*	230*
Supervision	44,000	...	43,276	...	...
Contingencies (and control).	49,657	...	49,601	...	...
Total ...	3,00,000	...	2,57,480	...	...

* Excludes *jamabandi* and *diara* for which no figures for cost rate can be given at this stage.

Up to the end of the year Rs. 19,49,093 was spent against an estimate of Rs. 20,50,000.

The savings are due to two causes :—

(1) the arrears mentioned in the last paragraph, and
(2) as the cost rates show, general economical working.

The main savings are in attestation and printing. In the former case attestation cost 2 annas 8 pies per tenancy against an estimated cost of 4 annas

3 pies per tenancy, whilst the cost of printing decreased during the year from 2 annas 7 pies per *khatian* to 2 annas 1 pie a *khatian* against an original standard rate of 3 annas 4 pies per *khatian*, which, experience has now almost definitely established, is too high. The low rate of attestation is probably due to the excellence of the field-*bujharat* in Dacca as well as to the experience gained in the working of previous seasons—a factor which should always tend to decrease the cost rate of attestation as well as of other stages during the last field season. On the other hand, receipts excluding recoveries up to date are as follows :—

	Rs.
According to estimate	65,500
Actual	43,029

The deficit is due to the jute crisis and the war, which have led to a decrease in the filing of cases and in the demand for printed maps and *khatians*. Moreover, the landlords and tenants do not appear to have as yet realized the importance of obtaining extra copies. Estimated and actual receipts up to date are respectively Rs. 1,16,062 and Rs. 93,275 and differ for the same reasons.

7. **Attestation.**—Attestation revealed little which has not been noticed in previous years. One great difficulty lay in an attempt to reconcile existing facts with a previous partition, and others were caused as in former years by disputes between co-sharer proprietors. Rent disputes accounted for nearly 60 per cent. of the disputes. In one property the papers were in an extraordinary state of confusion ; the same plot was often rented two or three times over in different estates, whilst the collections showed arrears which by calculation the Settlement Officer reports must have first accrued in the year 1583 in the reign of the Emperor Akbar. *Lakheraj* claims, particularly within Dacca Town, were numerous. Objections, though they averaged 16 to the square mile, presented no new difficulties.

8. **Land Revenue.**—*Diara* resumption was in full force during the year, and only two proceedings remained to be submitted to the Board. With the completion of the area within Tippera the *diara* proceedings of this settlement will be terminated. During the year 2,975 acres were under resumption with a proposed revenue of Rs. 7,018. The cost of the operations up to date is less than one year's revenue derived therefrom.

Four hundred and fifty-seven estates were under revision of land-revenue during the year. They are very scattered and their average area is less than one-fifth of a square mile. In 423 of these estates the revision of land-revenue was completed, resulting in an increase of revenue from Rs. 60,011 to Rs. 1,21,467, *i.e.*, by 102 per cent. and an increase of rent from Rs. 81,324 to Rs. 1,44,462, *i.e.*, by 78 per cent. Of the increase in rental 60 per cent. of the increase is due to extension of area or cultivation. On the other hand, in some of the estates rates had not been increased for 60 years owing probably to defective examination of the rents in neighbouring areas at intermediate settlements. The new average rental is just under Rs. 3 an acre. In the Bakarganj District Operations the new average rental was Rs. 3-5 an acre, but zamindari rents are higher in Bakarganj than in Dacca.

The relative increase in revenue is larger than the relative increase in the *raiyati* cash rental owing to the large amount of *barga* cultivation in the district. This gives a larger profit to the landlord and therefore warrants a higher assessment. Two temporarily-settled private estates were taken under the *khas* management of Government during the year owing to the bad management of the proprietors under the provision of section 3, Regulation VII of 1822.

9. **Recovery.**—Recovery was the other important operation going on in the district. At the outset progress was somewhat retarded by the jute crisis. An attempt was made to stop recovery by over-estimating the result of this crisis. As conditions improved more camps were opened and

recoveries have now improved. Three and quarter lakhs were realized during the year out of an original programme of five lakhs. Considering the circumstances under which recovery was made, the result is good. Sparing use has been made of the certificate procedure, whilst flying camps are being opened to sweep up arrears.

10. Statistics and cess have made good progress, whilst the work of the drawing section is quite up to date and should be completed in 1915-16.

11. **Printing.**—As in other districts, printing has improved considerably and in September the high rate of 2,539 per press was reached. It is difficult to understand this sudden and synchronous improvement in all the settlement presses in the Province with a staff in each at different stages of training. It is true that the rules are now almost more or less stereotyped, that the officers of the Department take the keenest interest in making the press a success, that the *khatian* form is simplified, that a spirit of gentle rivalry is abroad, but none of these facts appear to give a satisfactory reason for the sudden leap forward of all the presses resulting in a progress far beyond what was originally anticipated. It cannot, however, be too often reiterated that the check of the printed records is now more important than that of speed, that it should be quite independent of the printing section, and that the faster the work, the more rigorous the check should be.

Mymensingh.

12. Mr. F. A. Sachse, I.C.S., was in charge throughout the year.

13. **Programme.**—The following figures compare programme and performance for the year and up to date :—

	For the year.		Up to date.	
	According to estimate.	Performance.	According to estimate.	Performance.
	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.
Cadastral	1,162	1,102	6,693	6,453
Bujharat	1,100	1,058	6,462	6,364
Attestation	944	897	5,455	5,380
Objections	950	607	5,291	5,023
Janch	970	607	4,869	4,908
Statistics	930	1,051	4,519	4,575
Maps	700	876	4,163	3,865
Final records	1,174	1,635	4,113	3,895
Recovery	763	1,069	3,195	3,063
	Rs.	Rs.	Rs.	Rs.
	5,30,000	3,74,354	12,33,988	10,71,865
	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.
Case-work	1,275	400	2,221	1,198

The initial stages of cadastral, *khanapuri* and preliminary office work have been completed for the whole district. The difference in the areas is due to the net *diara* area falling below the estimated area after actual survey. *Bujharat* fell slightly behind the programme owing to the unexpected number of plots found in the Kathiadi thana of the last block, whilst attestation and objections are also slightly in arrears on account of the complexity of the attestation work. The difference in the area completed under recovery is due to the fact that certain villages have been kept back for resumption proceedings and to the temporarily-settled estates in which no recovery was made. The difference in the amount collected is explained below. In printing much leeway has been made up and the arrears will soon have been disposed of. Maps and case-work are in arrears owing to the curtailment

of the budget. On the whole, good progress has been made and it remains for the Settlement Officer in the present year to clear off all odd arrears of the earlier stages and to organize the later stages so that the settlement may rapidly approach completion.

14. **Expenditure.**—During the year Rs. 5,52,328 was spent against an estimate of Rs. 5,90,814, and Rs. 32,55,732 has been spent up to date against an estimate of Rs. 32,91,412. Except in attestation and printing there has been a saving in all branches of work during the year under report, and up to date.

The following are the figures for attestation and printing :—

	For the year.			Up to date.			Estimated cost-rate.	Standard cost rate.
	Estimate.	Expenditure.	Cost rate.	Estimate.	Expenditure.	Cost rate.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Attestation ...	56,303	67,304	75	3,04,808	3,28,604	62	56	66
Printing ...	42,088 (1,174 sq. miles.)	55,491 (1,635 sq. miles.)	34	1,27,115	1,43,289	42	31	54

The increase in the cost and cost-rate of attestation is entirely due to the unexpected complexity of the conditions already referred to, whilst the excess in the case of printing is due mainly to the largely increased outturn, though in previous years it was due to the slowness of the work at the commencement. During the year there has been an excess under the head contingencies from Rs. 36,680 to Rs. 51,800 on account of the cost incurred in press paper which was initially under-estimated. On the whole, though the present savings will be swallowed up by the completion of the arrears of work, and by the probable increased cost of case-work, the total estimate remains practically unaffected at present. whilst receipts have risen from Rs. 2,01,759 estimated to Rs. 2,67,165 mainly owing to the larger number of maps and records sold than was anticipated.

15. **Cadastral Survey, etc.**—The last cadastral season of this settlement comprised three distinct areas (1) the Madhupur Jungle, (2) the Northern Jamuna *diara*, and (3) the thanas of Bazitpur and Kathiadi in the extreme south-east of the district. The peculiarity and one difficulty of the first block was the large proportion of jungle and the extraordinary sinuosity of the narrow paddy fields lying within it. The traverse had been done on the " square " system, which the Settlement Officer reports made *khanapuri* difficult to organize. This area was unhealthy and very unpopular with the staff.

The second area was comparatively simple. The third area is remarkable for the amount of *bora dhan* grown in the large *bils*. It is thickly populated for the most part.

That the three areas are respectively jungle, *diara* and more or less ordinary is borne out by the figures for the number of plots found in each area, viz., 260, 415 and 1,130 per square mile respectively.

In the first and second areas the boundaries of villages gave trouble. Though there exist 84 revenue survey villages within the Madhupur jungle, yet in Mr. Chandra's jurisdiction maps it was only mapped in two or three blocks. The villages were found, however, to be inconvenient units and they have been split up in accordance with the local views on the subject. In the Jamuna area the traverse party had not followed the Revenue Survey boundaries, whilst during cadastral survey the landlord's local staff wanted the villages demarcated according to the collection papers and the superior staff according to the Revenue Survey.

16. **Attestation, etc.**—Attestation comprised some previous arrears and the attestation of the last block. It was not wholly finished, but this deficiency

was made up partially by the attestation of a portion of the simple Madhupur Jungle area in advance of the programme. Attestation was more complex than in the former areas as estates and interests (350 per square mile) were more numerous. In Kendua the *raiyats* had developed a practice of buying shares in the interest superior to their own and to the rest of the holdings in the village. The result seems to have been a confused state of affairs, which caused considerable difficulty in unravelling it; but it is also in places a local paradise in which no rent was either paid or received owing to the difficulty of splitting a rent of two or three rupees between 60 co-sharers.

Objections were few, averaging only 7 to the square mile.

17. **Other branches of work.**—As in other settlements the press has made great strides in the year. The last monthly return for the year showed that the average reached during the month was 2,000 per press with a maximum for a press of 3,000 *khatians*. It may be remembered that 1,500 was the average outturn expected when the scheme was introduced.

The programme for recovery was limited to the villages in which printed records and maps were ready. At the outset owing to the collapse of the jute trade recovery was carefully watched but by December it had appeared that no special measures were necessary. No certificates were issued in this district, but as it appears that the landlords in the first four blocks are in considerable arrears, coercive measures will be necessary, if the reasonable instalments the Settlement Officer proposes to allow are not promptly paid.

During the year case-work made little progress owing to the curtailment of the budget, whilst some important cases, particularly those relating to the Patiladaha pargana, are still on appeal before the Special Judge. The percentage of increase of rent gained by landlords in cases under section 105 was 29, mainly due to increase in area. In the majority of cases the settlement record was upheld on appeal.

Some important enquiries were made during the year into *diara* resumptions and a little land-revenue settlement work was disposed of, which resulted in an increase of revenue from Rs. 5,532 to Rs. 8,365, *i.e.*, by 51 per cent. mainly due to the rise in the rates paid by *raiyats* on the ground of "neighbouring rates."

Faridpur.

18. Mr. B. C. Prance, I.C.S., was in charge throughout the year, but on the 11th May 1915 he was also given duties in the general line to perform.

19. The programme for the year consisted of the completion of case-work, the recovery of costs, making over of records to the Collector and the writing of the final report.

	For the year.		Up to date.	
	Programme.	Performance.	Programme.	Performance.
Recovery ...	928 Rs. 5,04,000	574 Rs. 2,44,098	2,909	2,555
Case-work ...	32,452 (cases).	32,396 (cases).	2,909	2,900

It was intended that the settlement should close during the settlement year, but despite every effort and mainly on account of the war, which affected recovery seriously, this could not be done. Only a little, however, remains

before the proceedings can be finally closed. The settlement proceedings will be closed on the 29th February 1916.

20. **Expenditure.**—The expenditure for the year, excluding control, was Rs. 1,07,862 against an estimate of Rs. 97,020, but the total expenditure up to the end of the year has been Rs. 29,33,548 against the sanctioned estimate of Rs. 29,38,544 for the same period and for the operations. It is not likely that there can be any appreciable excess on the sanctioned estimate. Receipts to the extent of Rs. 4,69,689 have been realized against an estimate of Rs. 4,65,115. The following statement compares the estimated expenditure on the main items accordingly with that actually incurred :—

—	For the year.				
	Estimated expenditure.	Rate per sq. mile.	Actual.	Cost rate.	Standard rate.
	Rs.	Rs.	Rs.	Rs.	Rs.
Statistics ...	3,570	Not estimated	6,417	...	10
Recovery ...	8,100		10,940	19	20
Case-work ...	57,230		53,708	...	16

The excess expenditure in statistics was mainly spent in repairing the damage done by the cyclones and in collecting statistics for the final report. There was an increase in the cost of recovery due to the difficulties caused by the fall in the price of jute on the commencement of the war.

The following statement compares expenditure on supervision and contingencies with the estimates :—

	For settlement year.	
	Estimate.	Actual.
Supervision	14,960	23,652
Contingencies	10,450	11,744

The excess expenditure under the head supervision is due (1) to the necessity of retaining a Settlement Officer as a whole-time officer up to April and his settlement allowance for the rest of the year, and (2) to the impossibility of finishing all the work except case-work before March and the consequent retention of a larger office.

21. **Case-work.**—Cases filed during the year were somewhat less than had been anticipated owing to the fall in the price of jute consequent on the war. Under section 105, 25,494 cases were disposed of, 4,966 under section 106 and 1,936 under section 108-A. Case-work was accordingly finished earlier than had been estimated and at the close of the year only 56 cases under section 108-A were pending, if such work, the mere correction of clerical errors, can be called case-work. Section 105 in the case of 2,571 tenures resulted in an increase of rent from Rs. 30,975 to Rs. 37,303, viz., 21 per cent. and in the case of 18,665 *raiyats* an increase from Rs. 1,18,268 to Rs. 1,45,060, viz., 25 per cent. Under section 106 the record was upheld in five cases out of six. Appeals were filed regarding the settlement of rent in 1,121 tenancies, of which 412 were disposed of during the year, 301 of the decisions being upheld. Most of the disputes relate to fixity of rent. Appeals affecting 281 section 106 cases out of 321 were disposed of In 217 of these the order was modified though in many cases the modification was very slight. The entry of the decision in the five copies of the records was a tedious process but was completed for the work done during the year.

22. **Recovery.**—The progress of recovery is not so satisfactory, but this is entirely due to the crisis in the jute trade. It was only possible to recover

Rs. 2,44,098 out of Rs. 5,04,000, leaving Rs. 2,59,102 pending at the close of the year. The cultivators paid almost everywhere according to their ability, but everywhere there was a difficulty in realization from middlemen.

23. **Disposal of Records.**—The handing over of the records to the Collector has proceeded very smoothly owing to the interest taken by him in the matter. He employed a special staff for this purpose. At the close of the year the only large work which remained pending was the check of the 80 lakhs of saleable copies of the record. This is expected to be finished soon.

24. **Final Report.**—The final report has been written by Mr. J. C. Jack, I.C.S., and all that remains is the correction of the final proof and the writing of the subsidiary reports for the river strips in Tippera and Pabna districts.

Rajshahi.

25. Mr. W. H. Nelson, I.C.S., was in charge throughout the year, except for a fortnight when Mr. J. H. Donovan, I.C.S., acted for him.

26. **Progress.**—The following figures compare programme with performance up to date in the main branches of work :—

	For the year.		Up to date.	
	Programme.	Performance.	Programme.	Performance.
Cadastral	940	846	2 68)	2 538
Khanapuri	940	844	2,680	2,534
Bujharat	940	543	2 680	2 233
Attestation	870	856	1,740	1 712
Objections	840	833	1,540	1 667
Janch	850	576	1 530	1,152
16" Maps	890	235	890	770
Printing	890	39	890	35

The programme for the year with the exception of a portion of field-*burharat* and some arrears in the later stages has been completed. The actual area of the first three blocks is 2,538 square miles. The area of 4 square miles left incomplete in *khanapuri* represents the municipality of Rampur-Boalia. There were some 4½ lakhs of plots pending at the end of the year in field-*bujharat*, for the completion of which special provision has been made in the current year, but inasmuch as 18, instead of an anticipated 10, lakhs of plots were encountered, this is no cause for surprise. There is no means of automatically increasing the staff to deal with such a case as this. It is on the other hand satisfactory that so much field-*bujharat* was completed. This has led to arrears in *janch*, as the Kanungos could not be spared for this purpose for *bujharat*. The remaining arrears are due to the fact that no buildings were at first available in which work could be properly started, whilst little effort was made to accelerate the later stages on account of the curtailment of the departmental budget of the current financial year. The buildings have now been completed.

27. **Expenditure.**—The total expenditure during the year (excluding control and cess revaluation) amounts to Rs. 5,64,350 against an estimate of Rs. 5,92,758 and up to date Rs 13,56,177 against an estimate of Rs. 14,04,988.

Though there has been economical working in certain branches of work, the saving is not real owing to the arrears of work indicated above. It is however expected that further savings will be effected in the simple *diara* area, counterbalancing the heavy expenditure on the land area.

The total estimate is therefore at present not likely to be exceeded, though individual budget provision for the last years of the settlement will exceed that at present estimated.

The following figures compare estimate and expenditure in the main branches of work :—

	For the year.				Standard.
	According to estimate.		Actual.		
	Expenditure.	Cost rate.	Expenditure.	Cost rate.	
	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral Survey ...	94,000	110	86,715	105	110
Khanapuri	31,020	37	55,215	67	39
Initial Recess ...	13,160	18	11,353	14	18
Bujharat	79,900	87	88,168	162	94
Attestation	49,020	61	65,015	73	66
Objections	17,640	24	17,351	19	27
Janch	15,300	20	17,472	26	20
Statistics	8,600	10	6,811	3	10
16″ Maps	48,950	2	3,247	7	6
Topo Maps		1	690	1	2
Printing		54	6,405	...	54
Recovery and completion	6,500	28	...	...	...
Total ...	3,64,090	452	3,58,442	581	446
	Up to date.				
	9,13,390		8,64,848		

In the case of *khanapuri* and *bujharat* the excess is due to the fact that instead of 1,000 plots per square mile 2,150 were encountered; in the case of attestation 405 instead of 250 interests per square mile were found. The work of 16″ mapping and printing is not sufficiently advanced to warrant any remarks, suffice it that so far as printing is concerned, it is certain that a lower rate will be attained.

For supervision and contingencies the following are the figures for the year :—

	Estimate.	Actuals.
	Rs.	Rs.
Supervision	92,956	99,876
Contingencies	1,35,712	1,06,032
Up to date the figures are—		
Supervision	2,18,784	2,18,615
Contingencies	2,72,814	2,72,714

28. **Cadastral Survey, etc.**—The area under survey and *khanapuri* during the year under review consisted of the third block, being the Sadar subdivision comprising the "Barind" on the west, gently undulating red-soiled country, and on the east a congestion of village huts, *pan* gardens, bamboo groves and mulberry fields, called "*tunt bhitas*" which made survey difficult. The latter are raised table lands of soil, each surrounded by ditches which may be anything up to eight feet below the level of the field. They are a relic of the days when mulberry was grown and silk flourished. Then they were very profitable and bore a high rate of rent, which has not been reduced now that the mulberry is no longer grown. The most remarkable feature of the area is the minute size of the fields, which averaged 2,145 per square mile. Though in the Barind they averaged only 794, yet in Bagmara thana they reached the enormous figure of 3,939 per square mile. The number of interests were correspondingly large. *Bujharat* was, however, simple, except in a few isolated areas. Disputes did not average more than five to the square mile. Very small villages were amalgamated with adjacent villages to form convenient administrative units.

29. **Attestation.**—The attestation of the Naogaon subdivision was completed. As in other settlements the rules regarding the opening of "*barga*"

khatians at attestation and not at *khanapuri* has resulted in a large excess of *khatians*, viz., from 330,780 recorded at *khanapuri* to 368,258 at attestation in 894 square miles. Attestation was not difficult; but in many cases widespread illegal enhancements of rent had to be dealt with. It is in the matter of rent and *abwabs* that the relations of the landlord and tenant in Rajshahi are so curious. The Settlement Officer has collected evidence to show that there was a widespread enhancement many years ago owing to the adoption of a smaller *bigha* than the larger *bigha* which existed in previous years. He thinks that probably the entry of the standard *bighi* in the Revenue Survey maps making the area of a village greater than the area shown in the landlords' *chittas*, opened the eyes of the landlords to a splendid opportunity of increasing their rents on the basis of a fictitious increase of area.

30. **Relationship of landlord and tenant.**—The state of affairs in the district is very different from that which is described in Noakhali as the following remarks of the Settlement Officer will show :—

"The habit of submission is deeply engrained in the *raiyat*. The big landlord of this district if his oppression does not exceed the liberal bounds which custom sanctions, has no difficulty in realizing his rents to the uttermost farthing with twenty-five per cent. extra in *abwabs*. He easily carries out periodical enhancements in utter disregard of the Tenancy Act if he is not grossly and imprudently exorbitant. He insists that his tenants seek no court of civil or criminal justice without his permission and, taking upon himself the functions of a civil and criminal court, inflicts pecuniary and corporal punishment as a matter of course. A Munsiff in his circle note remarks 'Coercion in the mofussil is not a sudden momentary act but a persistent condition which vitiates all agreements between the *malik* and the *raiyat*.'

The ordinary amount of extortion and oppression causes no comment. The *raiyat* seems to feel the futility of any attempt to assert his legal rights and, in the absence of any outward expression of discontent, the relations between landlord and tenant pass for friendly.

In a few cases where the landlord oversteps the liberal margin we see just how much the tenant will stand.

* * * * * * * * * * * * * * * * He takes *abwabs* of about As. 8 in the rupee. He settles the same land with two persons taking from each as much *nazar* as he can get and then perhaps cynically advises them to divide the land in proportion to the *nazar* paid. If a *raiyat* dies without a son to succeed him he disregards the rights of a brother or other relative and settles the land with an outsider for the sake of the *nazar*. In such a case where a Mahomedan tenant had recently died, his widow and a cousin got their names recorded in opposition to a new tenant whom the landlord wished to recognise. For this the landlord has inflicted a heavy fine.

* * * * * * * * * *

Recently there has been a very large enhancement (based on an enhancement of rates as well as an alleged increase in area). Every effort was made to win over the headmen of the villages. On a tour of his estate he propitiated some of the headmen of the villages with presents of bicycles and gold watches and gramophones, others he coerced. When they consented to an increase in rents, in their own case light, the rents of the tenants were increased to an enormous extent in some cases by 300 per cent. Any tenant who refused to pay was coerced by threats of beating, confinement and insult to his women.

In one village after a survey made in 1304 the *jamabandi* was delayed till 1314 when enhancements varying from 50 per cent. to 200 per cent. were imposed. The tenants were compelled to execute bonds for the amount of the enhancement from 1306—1314 or to pay in two years. Again in 1320 there was an enhancement of two annas.

In a group of villages where the *raiyats* are strictly orthodox Mahomedans the landlord has met with resistance. He sent *barkandazes* but they had to retire as the tenants firmly refused to pay the enhancements * * *. Rents were then realized at the old rate for 1318-19 and 1320 but in the rent receipts no *jama* was entered. Recently he ordered the tenants to go to * * with these rent receipts with the intention of entering therein the new rents. The tenants have refused and are holding out in the hope that the settlement proceedings will decide the matter in their favour.

In most other villages the tenants have been unable to hold out. If their headmen side with the landlord they seldom are able to offer any resistance to his wishes. In many cases the tenants have not even dared to enter a rent dispute or produce their old rent receipts in support of their contention.

He makes no secret of his contempt for settlement proceedings and publicly avows his intention of collecting his rents at the enhanced rates even though the settlement courts cut them down. His tenants have been reduced to such a state of abject submission that in obedience to their landlord they have refused to produce their old rent receipts. When persuasion was tried the tenants said their landlord would ruin them if they produced the receipts. The Settlement Officers would be gone in a year or two and then there would be no one to whom they could look for protection.

Remarks on attestation would not be complete without a reference to the extensive *nij-jote* claim of the Dubalhati estate in "*bora*" lands in *bils*. This was based to a great extent on the final report of a previous settlement, but was given its *côup de grâce* by that very final report where it was ultimately found mentioned that none of the proprietor's private land was true proprietor's private land within the meaning of the Bengal Tenancy Act.

31. **Other branches of work.**—The number of objections was large, viz., 20 per square mile and is attributed to the growing familiarity of the people with the proceedings. A large number of them related to rent disputes.

32. Of the other branches of work only printing needs any special mention. Though the work was only started in June even here the average outturn per press at the end of September was 1,216 *khatians* per month.

Jalpaiguri.

33. Mr. J. A. Milligan, I.C.S., was in charge throughout the year.

34. **Progress.** The following figures compare the programme with performance :—

	For the year.		Up to date.	
	Programme.	Performance.	Programme.	Performance.
	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.
Printing of 16″ maps	...	100	2,307	2,307
Settlement of Land-Revenue.	...	7 sq miles of Sonthal Colony.	5 Govt. estates	5 Govt. estates.
Recovery of costs ...	500	350	998	848
	Rs.	Rs.	Rs.	Rs.
	3,47,384	1,54,380	6,30,459	4,65,737
Case-work ...	Sq. miles	Sq. miles	Sq. miles	Sq. miles
	318	315	997	997
		10,572 cases	14,381 cases.	14,345 cases

The main arrears are in recovery, for which an adequate explanation will be found in a following paragraph. It has been arranged to close the settlement on the 29th February 1916.

35. **Expenditure.**—Up to the end of the financial year 1914-15 Rs. 17,10,349 had been incurred against an estimate of Rs. 17,11,520. Since then up to the end of the settlement year Rs. 38,718 has been spent against an estimate of Rs. 19,320. It is now anticipated that the total estimate of the operations Rs. 17,30,849 will be exceeded by Rs. 40,000. The necessary arrangements are being made to meet this excess. Recovery proposals are not affected and the net expenditure is not expected to be affected to this extent.

The following figures compare the expenditure on the main branches of work with that estimated :—

	Estimated.		Actual.		Standard cost rate.
	Expenditure.	Cost rate.	Expenditure.	Cost rate.	
	Rs.	Rs.	Rs.	Rs.	Rs.
Recovery of costs ...	1,100	...	8,529	24	20
Case-work	22,460	71	26,648	84	16

The increase in the expenditure in case-work is due to the fact that cases were very stubbornly contested and highly salaried officers had to be

kept on later than was anticipated for their completion. The increase in expenditure on recovery of costs is due to the difficulties consequent on the war, mentioned in a later paragraph.

The following figures compare the estimated and actual cost of supervision and contingencies :—

	Estimate.	Actual.
	Rs.	Rs.
Supervision	13,518	40,900
Contingencies	7,470	12,347

Increased expenditure under the head "Supervision" was due to the necessity of keeping on the Settlement Officer and his supervising staff till the end of the year on account of the enforced delay in case-work and recovery and for the final report. This also affected contingencies which were thereby automatically increased.

36. **Case-work.**—At the commencement of the year there was a programme of 9,338 cases under section 105 and 1,234 under section 106. The main contest all through has been whether rents or rates of rent were fixed in prepetuity. At the end of the year there remained 28 cases under section 105 and 8 cases under section 106 for disposal. The precentage of increase of rent obtained by the landlords was slightly over 23 per cent. of the original rent. In 80 per cent. of the cases which were heard on appeal by the Special Judge, the decision of the Settlement courts was upheld.

37. **Recovery.**—At the commencement of the year Rs. 3,47,384 was recoverable and at the end of the year there was a balance of Rs. 1,64,722 pending. Recovery suffered a chequered career. First of all, there was the jute crisis following the war and then was a partial failure of the rice crop, necessitating lenience in realization of the dues. Not satisfied with this, however, the people tried to get recovery stopped and even as late as August, when conditions had much improved, made a last despairing effort to do so. The result was that the Settlement Officer had eventually to issue certificates to convince the people who could pay that it was necessary to pay. But no certificate was issued in the case of any tenant whose condition was one of real hardship, whilst only in three cases were drastic measures resorted to in enforcing the certificates. The issue of certificates was merely an index to the attempt of the people to retard or stop recovery and not to their inability to pay. Conditions have now improved to such an extent that if all goes well the Settlement Officer anticipates no difficulty in realizing the balance.

Tippera-Noakhali.

38. Mr. W. H. Thompson, I.C.S., was in charge throughout the year.

39. **Progress.**—This was the first season of the Tippera-Noakhali Settlement and work was done in the first block of 706 square miles in the south of Noakhali, including portions of the islands of Sandwip and the smaller islands off thanas Companyganj and Noakhali. This difference between the figure, in the original programme, of 850 square miles and of the figure 706 square miles for actual performance, is entirely due to the unexpected amount of diluvion which had occurred in Sandwip and along the mainland coast since it was last surveyed. The area of 706 square miles includes only the land area surveyed. In submitting the inception proposals it was, however, reported to Government that the present area of Noakhali owing to riparian changes was pure guess-work. From the operations several estates, which had recently been surveyed and settled and of which the survey was sufficiently good to warrant their omission, were omitted.

The actual area intended to be completed has been completed in all branches of the programme for the year.

40. **Expenditure.**—The following statement compares the estimated expenditure both for the year and up to the end of the year under review

according to the estimates recently reported to the Government of India with that actually incurred :—

	Estimated expenditure.	Rate per square mile.	Actual expenditure.	Rate per square mile.	Standard cost rate.
	Rs.	Rs.	Rs.	Rs	Rs.
Cadastral Survey ...	93,500	110	79,895	113	115
Khanapuri ...	31,450	37	31,035	44	39
Recess ...	15,360	18	12,114	17	18
Bujharat ...	73,100	86	64,750	91	94
Supervision ...	90,924	...	51,344	...	...
Contingencies ...	39,200	...	29,575	...	...
Buildings ...	76,000	...	1,206	...	...
Total ...	4,19,474	...	2,69,919	...	...

The actual expenditure on all branches is less than that estimated on account of the reduction of the area from 850 to 706 square miles. The actual cost-rates slightly exceeded those originally estimated owing to the large number of plots encountered, viz., 1,570 to the square mile, reaching in thana Feni the number of 2,070, whilst provision was made in the estimate for 1,000 plots to the square mile. In any case the operations have been economically conducted inasmuch as such an increase in the number of plots would normally have warranted a still larger increase in expenditure. In *char* and other areas the rate of actual survey was reduced from Rs. 10 to Rs. 8 per 100 acres, and fewer Kanungos were employed than were provided in the original estimate. From the fact that the cost-rates have not been more largely exceeded it may, however, be concluded that there was not that intricacy of record which has been found in neighbouring districts, whilst the Settlement Officer reports that the new *khanapuri* rules relating to the opening of *khatians* for intricate tenancies made matters easier.

The savings in supervision are mainly due to the facts (1) that the supervising staff including the Settlement Officer was very inexpensive and (2) that several Kanungos were employed on the general line during recess or in the Kanungos' training class at Dacca.

The buildings under construction were not paid for during the year.

41. **Cadastral Survey, etc.**—Cadastral survey was not difficult. The only difficulty was the small size of the plots. The islands were somewhat difficult of access particularly after March, but special arrangements were made to run through all the operations in them before the storms broke. The Settlement Officer had the advantage of being able to employ amins trained in the old Roshnabad Settlement, or their children. Neither *khanapuri* nor *bujharat* were very difficult, though a certain amount of subinfeudation was found in some estates. The Kanungos worked loyally to complete an unusually large individual programme of plots despite the early and high rainfall of the area.

42. **Character of the people.**—The character and circumstances of the tenantry is peculiar and different from that found in other settlements in Bengal. The description given by the Settlement Officer of their circumstances and conditions shows that it is the *raiyat's* paradise. The land is very fertile. Two good crops are obtained and if the people exerted themselves, a third could be obtained during the year. The betelnut and other trees also form another valuable source of profit to them. Rents are low compared with other districts. Illegal *abwabs* practically do not exist, whilst produce-rents are very seldom found. Tired of trying to obtain an enhanced rent, landlords in despair have given their raiyats for a consideration, "shikmi" rights as they call them, carrying the right of fixity of rent and of transferability. *Bhadroloks* are few and influential landlords, absentees. All men are equal except the self-made man who has managed to push himself in front of his fellows. Primary education is much sought after.

In his method of deciding disputes, the Noakhali *raiyat* is apparently most law-abiding, as each and every dispute is taken to the courts for decision.

He seldom resorts either to violence or arbitration, but he is very litigious. Disputes during *khanapuri* averaged nearly seven per square mile, but very few disputes were decided which had not already been decided by a competent court. There were only three boundary disputes. No action regarding rent-receipts was necessary.

43. **Tenancies.**—The "shikmi" right mentioned above is a curious tenancy inasmuch as whether the tenant cultivates the whole of the land himself or not, neither he, nor the landlords nor the Civil Court would ever hold him to be a *raiyat* but unhesitatingly say that he is a tenure-holder. The "shikmidars" consider that they have been promoted from the status of *raiyat* to that of a tenure-holder and are very much disturbed at any attempt to degrade them to *raiyats*. So long as such a definite custom holds good, it would be unwise to do other than record them as tenure-holders, particularly as this preserves the right they desire and at the same time those of the actual cultivators, if there are any, below them. The statistics of villages without any *raiyats* will, however, look curious to the uninitiated.

44. **Government estates.**—Two large groups of Government estates are in the area.

Midnapore.

45. Mr. A. K. Jameson, I.C.S., was in charge throughout the year.

46. **Progress.**—The following statement compares programme with performance in the main branches of this settlement :—

—	For the year.		Up to date.	
	Programme.	Performance.	Programme.	Performance.
	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.
Cadastral Survey and Khanapuri.	968	968	3,925	3,847
Attestation ...	932	855	2,957	2,876
Janch ...	475	994	2,245	2,121
Press ...	1,639	1,287	1,736	1,382

The programme of cadastral survey, *khanapuri* and attestation has been completed ; the difference is due to the difference between estimated and actual area. The slight arrears in *janch* is due to the late completion of objections. Though arrears are shown under the Press, nevertheless more interests were printed than were provided for in the estimates. The later operations, viz., preparation of 16″ maps, recovery and the case-work put down for the year's programme has been delayed owing to the curtailment of the departmental budget for the current financial year.

47. **Expenditure.**—The total expenditure during the year was Rs. 5,75,919 against an estimate of Rs. 6,00,703 including control and cess revaluation, and up to date Rs. 16,98,793 against an estimate of Rs. 17,44,666 including the same. Up to date there is thus an apparent saving of roughly Rs. 45,000, but there are arrears of work, on which the estimated expenditure is Rs. 80,000 remaining to be completed. With expected economies it may be confidently expected that this threatened excess may be reduced, but the larger number of plots and interests found in the last two blocks of this settlement have materially increased the cost of the earlier stages and swallowed up savings on supervision. A fair allowance, viz., 1,717 plots and 429 interests for the third block and 1,500 and 375 of the same respectively for the fourth block was made in the estimate, but the actual figures are respectively 1,939, 567, 1,848, 612 for the two blocks. It is, however, too early to discuss the question of any probable excess in the estimate until another year has passed.

The following statement compares the estimate with expenditure for the year :—

—	Estimate.	Cost rate.	Expenditure.	Cost rate.	Standard Cost rate.
	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral Survey and Khanapuri ...	1,28,846	115	1,44,623	149	147
Initial Recess	47,756	43	43,598	45	18
Attestation	74,550	76	1,20,298	140	152
Objections	11,677	10	10,889	15	27
Janch, statistics, etc.	50,820	43	41,849	40	38
Press	43,602	44	46,140	36	54
Recovery	10,694	12	3,216	14	20
Section 112 work	7,280	35	6,359	Not available.	16
Section 104 E	6,710		180		
Cess-work	35,894	35	...	„	...
Supervision	81,848	...	58,486	„	...
Contingencies including forms and stationery.	70,614	...	78,085	...	...

The excess expenditure in cadastral, *khanapuri* and attestation is accounted for by the facts given above and in attestation also by the large number of *mokarrari* and rent-free claims which had to be examined. It should be remembered that in Midnapore there has been no field *bujharat*, and therefore a very careful *bujharat* of every plot has to be done in the attestation camp. Nevertheless the Settlement Officer is making a special enquiry to see whether the attestation cost-rate cannot be reduced. The actual cost rate for printing per *khatian* for the year was 2 annas 9 pies against the standard of 3 annas 4 pies per *khatian*.

Real savings have been effected in supervision mainly owing to the fact that the two Civilian Charge Officers for which provision had been made were not employed throughout the year. The excess expenditure on contingencies is owing to the large number of camps which had to be opened on account of the large number of plots and interests found.

48. **Cadastral Survey and Khanapuri.**—In last year's resolution Midnapore was described as being almost a province in miniature. Such a description can almost be applied to the area under field-work during the year under report. The physical features varied from rocky laterite covered with large patches of jungle and waste land in the west of Midnapore, Keshpur and Chandrakona thanas through comparatively high fertile paddy fields in the east of these thanas and in parts of Debra and Panskura, to the low-lying water-logged regions in Ghatal, Daspur and the east of Panskura. From the account received of Ghatal its condition is deplorable. It is a dying country, gradually being depopulated and going out of cultivation, owing to the peculiarity of its drainage system, which makes it generally liable to water-logging, and to the prevalence of fever. Its unhealthiness produced a greater panic amongst the amins than did the Emden amongst the amins sent to Noakhali, where it is reported that only one amin, though his brother had joined the Expeditionary force, did not join through fear of the Emden. Some use was, however, made of the Emden by interested persons to try and dissuade the cultivators from attending the operations, saying that when the Germans took over the Government there would be an end of all settlement. If they had qualified the matter by an "if" and had said "an end of all permanent settlement in Bengal" they would certainly have been right. Another point of comparison with the province in miniature is the presence of six municipalities in the area, of which four are for the most part agricultural, with only patches of *bustee* no thicker than an ordinary village. The town of Midnapore also came within the operations but, except for the large number of plots, few difficulties were encountered at this stage. The municipalities were all surveyed by revenue-survey villages and the boundary of the municipal area was shown on the maps.

Detailed classification of the undulating area was done on the same principles as in the blocks A and B, but was unnecessary in the alluvial area.

The chief difficulty in survey was the large number of plots, viz., 1,848 to the square mile, reaching 2,800 in Ghatal and Daspur thanas. The average size of the revenue survey villages was small and in consequence, 525 amalgamation proceedings were drawn up without objection from any party. The greater part of the area belongs to big landlords like the Maharajadhiraj of Burdwan or the Seals of Calcutta, and relations between landlord and tenant were for the most part good. The attitude of the people towards the settlement was also good.

Tenures were simple, whilst the main difficulties encountered in *khanapuri* related to rent-free claims or religious endowments. The bulk of the 10,490 disputes (11·9 per square mile) related to such claims whilst the remainder disclosed no special features. There were 98 boundary disputes. Altogether the area, though very diverse in its physical features, presented fewer complications than the previous block did.

A new form of working *khatian* on Eastern Bengal lines was introduced during the year, whilst particular care was taken to have a careful comparison, with useful results, made of the map with the *thak* survey, which in the alluvial area at all events, is very good.

49. **Attestation.**—Attestation was a laborious and large task. Owing to the very large number of plots and interests, viz., 16½ and 5½ lakhs, respectively, 20 attestation camps had to be opened for an area of only 859 square miles in the third block of the settlement. The majority of them were closed in June. Subinfeudation was slight, but rent-free, *mokarrari* and *nij-jote* claims were numerous. No less than 49,896 holdings were recorded as *mokarrari* and 17,522 as rent-free. Rent-free claims were very carefully dealt with, care being taken to place the onus of proof on the right party. *Mokarrari* claims in the Mahishadal estate were numerous, a fact which was anticipated, but the estate has been able to produce little or no rebutting evidence. The Settlement Officer remarks that the landlords have lost a number of disputes relating to rent-free and *mokarrari* claims, mainly owing to their negligence in keeping their papers. From Mahishadal there came a claim to proprietor's private lands covering 6,000 *bighas* which was referred to be Legal Remembrancer for opinion. From the evidence reported to have been produced, it appears that the papers produced to prove the claim, are by way of being the strongest ever produced in such a case, but it remains for the actual strict and detailed proof demanded by the Act to be examined. In Pataspur, a temporarily-settled area, a *nij-jote* claim was also made based on the previous settlement records (Bengal Tenancy Act) in which the land was recorded as such. This is under further examination. In the Jalpai mahals where an effort had been made during *khanapuri* to have *bhagchasis* recorded as labourers instead of as tenants no real attempt was made to have them recorded as such during attestation. In other respects the question of status gave little trouble.

In one large estate rents had not been defined for over a generation ; the tenants paid what they liked and the owners stated neither area nor rent in their receipts, being happy to obtain what they could. This state of affairs awaits section 105 for its final clearing up. In Sabang and Tamluk thanas some curious examples of rent adapted to the liability of the crop to damage owing to defective drainage, were found. Some landlords, whilst fixing rates for paddy lands which would be fair in a season of good crops grant liberal remissions in proportion to the area of the holding in which the crops are damaged or totally destroyed. Others, to save themselves this trouble, have compounded with the tenant for lower rates to be paid in good and bad years alike. In some estates " chhars " or remissions are frequent, such as " mamul chhar " or ordinary remission, " silpa chhar." remission on account of the cultivator being a manufacturer, and " bhadra chhar " remission on account of the cultivator being a gentleman, as one Assistant Settlement Officer quaintly translated it.

Following the decision in rent-suits " chhars," which had always been made, were deducted from the rent, but those which were in the nature of wages were not deducted from the rent. Unlike the previous two blocks, disputes regarding trees were few, and in almost all cases the trees were recorded as belonging to the tenant.

50. **Revision Settlement.**—The revision settlement in the temporarily-settled estates of Pataspur, which was so inexpensive in the cadastral and *khanapuri* stages, was much more expensive than was expected during attestation. For one thing during cadastral and *khanapuri* the name of the persons in possession had been recorded as the tenant at *khanapuri*, but during attestation the estate objected and the names of the nominal tenants had to be restored. For another thing the classification in the previous settlement was found to be faulty, and a kanungo had to be deputed to re-classify the land under the instructions of the Settlement Officer.

51. **Attitude of the people.**—The attitude of the people during attestation was on the whole good. Most of the big zamindars produced their papers freely, a few gave some trouble and one even went so far as to bribe a clerk to extract a paper from a record. There is little to say about the *raiyats* except that in Tamluk they have, in the words of the Settlement Officer "waxed fat and kicked". The rents in this particular area are low and practically fixed, whilst it is reported no *abwabs* are realized from them. The disputes in this area provide touts with money, a forgery factory with employment, and the *raiyats* with a diversion. Several cases of forgery were detected and sanction given to prosecute, but the Settlement Officer thinks that a large number passed unnoticed.

52. **Objections.**—The number of objections was large, an average of 33 to the square mile against 16 in the previous year. This is attributed by the Settlement Officer partially to the extension of time allowed after draft publication for the filing of objections as well as to the peculiarities of the area in the shape of *mokarrari* and rent-free claims.

53. **Other branches.**—The progress and quantity of the work done in all the other branches of work was good. The work of the *khasra* section was somewhat simplified, that of the drawing section has been considerably improved, and computation for recovery has been practically completed for the area ready for recovery. The final report on the rate report on the proceedings under section 112, Bengal Tenancy Act, in the Silda Pargana has been received.

54. **Printing.**—The branch of work which shows the greatest improvement and skill in organization is printing. This was started in the previous Settlement year and in last year's report it was stated that the work was not sufficiently advanced to quote any statistics. During the year however the average number of *khatians* printed per press was 1,200 per month, a good average for what is practically the first year of printing, whilst the highest figure reached by any one press in a month is 3,482 in the last month of the year. Particular care is given to the checking branch, in which the complete record is checked and 10 per cent. rechecked, at the small cost of 2·6 pies per *khatian*. The number of errors found show a steady decrease during the year.

General.

55. The following statement compares the intensity of inspection of survey and *khanapuri* in the different district operations :—

—	Partal of cadastral survey.			Inspection of khanapubi.
	Number of linear miles of partal in each square mile.			
	Personal.			Number of plots per cent. inspected.
	By whole Staff.	By Officers only.	Independant.	
Midnapore	3·82	·53	1·39	11
Mymensingh	2·44	·18	Not in force	Not available.
Rajshahi	3·94	·17	Ditto	5
Tippera-Noakhali ...	5·00	1·33	Ditto	7

Inspection is adequate in all settlements. The amount of inspection in Tippera-Noakhali is a gratifying indication of the determination of the Settlement Officer to have a good survey in those districts. More attention was paid to the *partal* of village-sites than in previous years. Inspection of *khanapuri* is not of so much importance in Mymensingh, Rajshahi and Tippera-Noakhali as every field is visited during field-*bujharat*.

Minor operations.

56. **Burdwan.**—The Settlement office was in charge of a Special Officer, Babu Satamanyu Mukharji. Twenty-three scattered estates were under settlement during the year, 22 of which are permanently-settled estates with an area aggregating 23 square miles. The other estate is the Grand Trunk Road on which operations were started during the year and are now at the attestation stage. Thirteen of the permanently-settled estates were commenced in 1912, three in 1913, three in 1914 and three in 1915. Of the estates commenced in 1912 and 1913, in all except two the record has been finally published and the operations are at the stage of case-work. Satisfactory progress has therefore been made. In a somewhat variegated programme the main items left pending in the settlement operations are case-work and the completion of the proceedings on the Grand Trunk Road. The notable features in this settlement are the numbers of rent-free and statutary *mokarrari* claims, the production of old papers rebutting the statutary *mokarrari* claims, the ability of the tenants to look after their own interest, and lastly the question of trespass on the Grand Trunk Road, which is receiving the attention of the Collector in accordance with the instructions of the Board of Revenue.

57. **Bankura.**—The only area dealt with during the year was the small *patni* estate of about 4 square miles which was taken up in the previous year. Survey and *khanapuri* were finished and some progress was made in attestation. The progress was not satisfactory and this was mainly due to the fact that no officer with sufficient settlement experience was available in the district and to a change in officers during the field season. The work has now been placed under the whole-time officer at Burdwan and arrangements have been made for redoing it from the stage of field-*bujharat*.

58. **Hooghly.**—The programme for the year consisted of (1) recovery of Rs. 9,725, (2) the completion of work in nine estates (of which three were Government estates) taken up in the previous year and two estates sanctioned during the year, and (3) Regulation settlement in four Government estates. The whole of the programme was carried through except for a small arrear of Rs. 2,371 in recovery, whilst, owing to the fact that one of the estates sanctioned during the year, could not be taken up before March and the proceedings in that estate only reached the stage of *bujharat*. The proceedings in the other estates sanctioned during the year had to be dropped as the applicant was not in possession.

The rent settlement proceedings under the Bengal Tenancy Act have resulted in an increase of revenue by Rs. 6,028. In the Regulation Settlements the revenue increased from Rs. 342 to Rs. 630.

It is satisfactory to note that the cases under sections 105 and 106 were promptly disposed of, only two cases under section 105 (out of 219) remained pending at the end of the year, on account of certain cases in the Civil Court. The result of the proceedings under section 105 has been an increase of rent by 17 per cent., while Rs. 657 have been settled on previously unassessed lands.

There was no special officer but Babu Khitish Chandra Haldar continued to be in charge of settlement work in addition to his duties in the general line. For settlement purposes Howrah became a separate district during the year under review and by the Government Rules the covenanted Deputy Collector of Howrah was vested with the powers of a Settlement Officer like other District Officers. There was, however, no work done in Howrah under the control of this Department during the year.

59. **24-Parganas.**—Eight scattered estates with a total estimated area of 16·42 square miles were under settlement during the year. Of these one—the largest, with an area of 9·60 square miles, is a Government estate. The work in this estate was commenced in December. Survey and *khanapuri* were finished and some progress was made in *bujharat*. The traverse was done by the Director of Surveys and owing to some delay in the receipt of the traverse-sheets and certain other causes, *khanapuri* was delayed and early rains prevented the *bujharat* programme being carried through completely. Of the 7 private estates final reports were received in respect of two in which work was commenced in 1912. One estate with an area of 4·59 square miles was commenced in 1914 and the records were finally published in the course of the year. The remaining four estates were taken up in the same year and the records in two of these were finally published before the close of the year under review. The other two estates are pending for attestation. Arrangements have been made for a whole-time officer for the current field-season so that the pending work may be finished as quickly as possible.

60. **Nadia.**—The programme comprised settlement under the Regulations in 16 Government and temporarily-settled estates and records-of-rights under the Bengal Tenancy Act in two permanently-settled estates. The Regulation Settlements were all completed excepting two in which the rent-roll was being prepared when the year closed and resulted in an increase of land revenue from Rs. 1,748 to Rs. 2,213. Two of the estates which had been bought in by the Collector at Revenue sales could not be traced, and under the Board's orders they have been continued to be shown on the revenue-roll with their present demands. The records in the two zamindary estates were finally published and what remained of the Bengal Tenancy Act settlements in this district at the end of the year was the disposal of 288 cases under section 105, and 35 cases under section 106.

61. **Murshidabad.**—The settlement operations in this district were in charge of a special officer, Babu Abinash Chandra Banerji. The work comprised Government and temporarily-settled estates, six Wards estates and five private estates—a total area of about 39 square miles of which 16 square miles were commenced during the year under review. The areas were scattered and the programme was diffuse. The survey and *khanapuri* programme of 15·7 square miles was carried out in full, but *bujharat* and subsequent stages fell into arrears. The arrear in *bujharat* is not surprising as the programme, with which two kanungos were expected to cope, actually reached the high level of 44,427 plots instead of the standard of 33,000 for 33 square miles. Thirty-six thousand five hundred and sixteen plots were completed. The traverse in the new area was conducted by the Director of Surveys and although there was some little delay in receiving the sheets, the result has been satisfactory, while the extra cost involved is trifling.

The special features of this settlement have been claims to a *raiyati* status in extensive areas in the temporarily-settled estates, and *utbandi* claims in certain other private estates.

62. **Jessore-Khulna (Mokimpur).**—The programme for the year was the disposal of a large amount of case work (6,210 cases under section 105, and 61 cases under section 106) and this was sucessfully accomplished. The total enhancement decreed in the cases under section 105 is about 22½ per cent. The Court of Wards did not proceed with a very large number of cases, while 719 cases were compromised according to the terms laid down by the Board of Revenue with slight modification in some cases to suit the convenience of the parties. The remaining cases had to be decided on their merits. Considerable indulgence was given to the Wards estate in the matter of adjournment, so much so that this threatened at one time to have a demoralizing effect upon the tenantry. Even so late as March the Wards estate was applying for time to file process fees. It is satisfactory to note that the Settlement Officer succeeded in disposing of all the cases within the year. The only work which remained pending at the close of the year was the consignment of records and submission of the Final Report.

63. **Khulna.**—The final report pending was received during the year and the cases under section 105 were also disposed of. A new estate Boyarsinga—

a Government estate—was taken up during the year. Traverse and *kistwar* were completed, and some headway was made in *kistwar* according to the *bargadagi* system. The proceedings were, however, suspended pending enquiry into an objection raised by the Superintending Engineer, South-Western Circle, that reclamation of this area was undesirable in view of the fact that, with the rivers and *khals* flowing through and around it, it formed a kind of spill-area for the country around and thus served to keep up several important rivers in the Sunderbans.

64. **Bakarganj.** (1) **Revision of Land Revenue.**—Proceedings for revision of land revenue were going on in 62 Government and temporarily-settled estates covering an area of about 118 square miles. Five of these estates with an area of about 20½ square miles were dealt with under the Regulations. Work in five estates with an area of about 16½ square miles had been practically completed in the previous year. The other estates were at different stages of completion, and the programme for the year consisted mainly of 5 square miles of survey and *khanapuri*, 10 square miles of attestation and 57¾ square miles of *jamabandi* (rent-roll). Survey, *khanapuri* and attestation were completed according to programme, but there was a slight arrear of 5 square miles in *jamabandi* at the end of the year. The actual preparation of the rent-roll was, however, completed in the whole of the area and in one case it was only pending draft publication. Where the rent-roll has been confirmed, the revenue has increased from Rs. 40,546 to Rs. 50.370 *i.e.*, by 25 per cent.

The most important estate dealt with was that of Tushkhali which has a total revenue of over a lakh. The table of rates was approved by Government with slight modification. The preparation of the rent-roll was also completed and it was ready for submission for confirmation when the year closed. It is remarkable how few objections were filed.

The special feature of the settlement was the quickness with which the work, heavy as it was for a minor operation, was, inspite of special difficulties which at times hindered progress, carried through by the special officer in charge.

(2) **Diara.**—The *diara* operations in charge of Rai Saheb Hara Kishore Biswas were at the closing stages. Altogether 833 new estates have been formed with a total area of 40·78 square miles and net revenue of Rs. 56,429. Proceedings with regard to 54 estates involving a revenue of Rs. 5,601 are pending for confirmation by the Board of Revenue.

65. **Faridpur.**—The minor operations in Faridpur comprised proceedings for revision of land revenue in 38 Government and temporarily-settled Estates. Three of these were practically finished in the previous year, 26 were taken up in 1914 and 9 in 1915—total area 44 square miles. The estates were thus at different stages. Of the estates taken up in 1914, work was finished in 22 (12 under the Regulations). Of the remaining 4, 2 estates had to be re-surveyed (though this was not in the programme) as fluvial action had changed the land to a very great extent. They were, however, all brought to the stage of preparation of the Rent-Roll. Satisfactory progress was also made in the work of the 9 estates taken up in 1915. Where the rent-roll has been confirmed the rent-roll has increased from Rs. 13 303 to Rs. 17,456, *i.e.*, by 31 per cent. mainly on account of increased fertility owing to fluvial action and increase in area, but the revenue has increased from Rs. 9,409 to Rs. 16,650, *i.e.* by 78 per cent; the greater difference is due to the termination of a farming lease.

The District Settlement Officer continued to be in charge of these minor operations also.

66. **Noakhali.**—This was by far the most extensive of the minor settlements in the Province. Its charge had been transferred to the District Settlement Officer in the previous year.

The programme lay in one permanently-settled estate, Dandra, covering 37·95 square miles, and 25 Government and temporarily-settled estates comprising 110·65 square miles. The programme of and *bujharat* attestation was small—only 8 square miles—and this was accomplished. It was possible to dispose of the large number (4,221) of objections under section 103 A, only because the staff of the District Settlement were always available for

assistance. The most important of these objections were the *mokarrari* claims in the estate of the Raja of Hill Tippera. These were heard and disposed of by the Settlement Officer himself.

The main work, however, of this settlement lay in settlement of rent and revenue in 15 Government and temporarily-settled estates with a total area of 77 square miles and the programme was practically carried through. Rent-rolls were confirmed in 7 of these estates and in one case the proceedings were remanded by me. In one estate a partition was effected under section 10(*9*) of Regulation VII of 1822 between Government and a private proprietor.

The rent-settlement proceedings proved particularly difficult, as the objections under section 104 E, were extraordinarily numerous; 72 were pending from the previous year and 2,214 instituted during the year. There were 162 appeals, 47 of which were sent up and 21 disposed of. The appeals were heard on tour. The objections related to questions of divisions and amalgamations of tenancies and mainly to rates of rent, but their large number does not indicate that the rates proposed or fixed were high. On the contrary the increase in the rates only gives a total increase of Rs. 494 on a *raiyati*-rental of Rs. 6,978. The small increase is due to the fact that the contractual rents recovered by tenure-holders were ordinarily higher than the rents settled for the *khas mahal raiyats*. There is, however, no provision of law under which these contractual rates can be reduced. The total increase of land-revenue in the 7 estates in which the rent-rolls have been confirmed is only Rs. 868 on Rs. 3,998.

The principal work pending in the settlement consists of the preparation of the final copy, computation and recovery in estate Dandra. This was held up pending orders on the question of cess revaluation. In the Government and temporarily-settled estates the Settlement Officer is only waiting for the statutory period of appeals under section 104G, Bengal Tenancy Act. Credit is due to the officer in charge Maulvi Mahamad Mahmud for having brought the work as far as this stage of completion.

67. **Malda.**—A small Government estate was taken up late in the field season of the year under review, and some progress in survey was made. The work has now been placed in the charge of the Settlement Officer of Rajshahi.

68. **Tippera.**—The records of the small estate of 50 acres were finally published and the remaining cases under section 105 were also disposed of during the year.

PART II.

69. **General.**—Minor operations gave rise to some difficulty during the year in districts where, owing to the smallness of the area involved, they were under the control of officers of the district staff whose experience of settlement was either slight or out of date. In three districts, it was accordingly found necessary to change the officer and to place the work under more experienced officers either in the same or adjoining districts. As matters stand at present, except in one district where there is practically no work remaining, all minor operations are now under the charge of experienced officers. Since the close of the year certain minor operations in the adjoining districts of Malda and Murshidabad have also been placed under the Settlement Officer of Rajshahi, a plan which seems to contain the nucleus of a more efficient scheme for dealing with minor operations generally. In some minor operations, though certainly not in all, there is a tendency of the officer in charge to relax his efforts owing to his greater security from inspection. If District Officers would inspect the work oftener and obtain an explanation of matters which *primâ facie* require explanation, much good work would be done. In the Manual and Instructions under issue certain general and particular rules have been laid down for the use of District Officers on inspection, and it is hoped they will be used by District Officers both with profit to themselves and the Department.

On the whole there has been a commendable improvement in the work of minor operations, attributable mainly to a more careful selection of keen officers, to the introduction of field-*bujharat* by settlement kanungos, and to a more general use of the services of the Survey Department in traverse work. The two latter items increase the cost of the work, but the accuracy obtained is well worth it.

70. **Influence of the War.**—The influence of the war was felt mainly in recovery work, when owing to the jute crisis following the commencement of the war, considerable difficulty was at first felt in the realization of the demands, whilst the expansion of the recovery programme was hampered to a large extent. In the later stages in major operations, comprising map reproduction, recovery and case-work arrears were also caused by the reduction in the budget. The district operations of Jessore and Bankura were postponed for the same reason pending the end of the war. On the whole, however, the war has had marvellously little effect during the settlement year under review on the operations in progress, though certain difficulties have arisen during the present year owing to the postponement of Jessore and Bankura.

71. **Survey and Settlement Manual.**—The important work of co-ordinating the rules of procedure prevailing in the two parts of the Province and compilation of a revised Survey and Settlement Manual was taken up and practically finished during the year. Mr. G. H. W. Davies, I.C.S., was appointed special officer and he worked in this capacity for five months. Although the main object was to bring together the existing orders of Government, there were numerous points on which special orders had to be obtained. The most important of these were the forms of working record and the final record. Orders were also obtained regarding the form of the *khasrâ* and the forms of final statistics, including those required for the use of the Department of Agriculture. During the year the place of the quinquennial programmes of Surveys and Settlements in Government and temporarily-settled estates was taken by lists and maps of these estates to be kept up-to-date in the Collectorate and also in the office of the Director of the Department. The case-work rules underwent a thorough scrutiny and were finally approved by Government, whilst the account rules were settled in consultation with the Accountant-General. One of the most important subjects discussed was the procedure to be followed in *diara* operations. Full advantage was taken of the experience gained in the *diara* proceedings in Bakarganj and Faridpur, and detailed rules were framed with the approval of the Director of Surveys, the Board of Revenue and Government.

72. **Guide and Glossary to Settlement records.**—This Department has also taken up the compilation of a guide and glossary to settlement records on the lines of a similar pamphlet previously published for the operations in the Bihar districts. There has been some delay in completing the work as the terms used in different settlements had to be collected and examined carefully.

73. **Economies in expenditure.**—The question of economies continued to receive the attention of the Settlement Department and it is proposed that an experiment should be made by the Settlement Department to see if economies can be effected by that Department doing its own map-reproduction by the vandyke process. A reference has already been made to this important question in the paragraphs dealing with major settlements. The cost rates in minor operations are slightly increasing owing to the facts already referred to in paragraph 69.

74. **Training class for candidates for Kanungoships.**—Sixty candidates were selected on the nomination of Collectors and Settlement Officers of whom 52 underwent the prescribed course of training held at Dacca in August and September 1915. Forty-one passed the final examination. It has not, however, been possible to provide them with appointments in this Department this year, as owing to the unexpected postponement of the operations in Jessore, the staff of kanungos has been very considerably reduced.

75. **Training of Munsifs.**—The munsifs deputed were for the greater period of their deputation placed in independent charge of circles. Of the munsiffs previously sent, eight reverted to the judicial line on completion of

their deputation. As usual eight new munsifs were sent by the Hon'ble High Court of whom two were posted in Tippera-Noakhali, two in Mymensingh, two in Rajshahi, and two in Midnapore. It is hoped that the experience gained by the munsiffs in Survey and Settlement work and the insight obtained into the manner in which the Tenancy Laws actually work amongst the people will be of real use to them in their judicial work. Many of them took a keen interest in the work and proved themselves valuable officers.

76. **Training of Junior Officers.**—The camp opened on December 1st at Char Kuona in the Kishoreganj subdivision of the Mymensingh district. It was the 7th of the more ambitious series initiated by the Hon'ble Mr. Beatson Bell in 1908. The full camp was the largest yet assembled consisting of eight officers of the Indian Civil Service, 18 Deputy Magistrates and Deputy Collectors, 17 Sub-Deputy Magistrates-Collectors, five Assistant Superintendents of Police, one Deputy Superintendent of Police and two Wards of the Court of Wards. As in previous years the officers under training were employed on actual work in the field. They also received a course of lectures from the Settlement Officer. The training camp was a distinct success. Besides the abovementioned officers 43 Sub-Inspectors of Police also received training in the field up to the stage of *bujharat*, viz., 25 in Tippera-Noakhali and 18 in Rajshahi. The result has been satisfactory and the Inspector-General of Police is sending 50 Sub-Inspectors for training this year.

77. **Final Reports.**—The Bakarganj final report was completed and submitted to Government for orders. The Calendar of Estates in Bakarganj prepared by Mr. J. C. Jack in this connection was also completed and came out of the press during the year under review. The final report on the district operations in Faridpur was written during the year; it is now passing through the press. The final report on the settlement operations in the Sonthali villages in Rampurhat and several other villages in the district of Birbhum was prepared during the year and submitted to Government. The final report on the petty settlements in the district of Midnapore which were in charge of Babu Bhubaneswar Sanyal was received during the year. Several final reports on the completed settlements in the districts of 24-Parganas and Jessore were also received during the year and disposed of.

78. **Jurisdiction.**—No important change in Revenue jurisdiction was ordered during the year under review. Thirty-eight proposals, mainly relating to police-stations were, however, examined by this department.

A special officer, Rai Manomohan Chakravarti Bahadur of the Provincial Executive Service, was deputed to prepare, under the supervision of this Department, an historical account of the changes in the jurisdiction of district boundaries since the advent of the British Government. All available information was gathered during the year and the account is now passing through the press.

79. **Maintenance of Boundary Marks.**—Appendix X shows that out of a total of 28,441 marks15,967, *i.e.*, about 60 per cent. were inspected. This is an improvement over what was reported in the previous year. Of the total number of marks inspected 14,301 were found to be in fair order, while 441 were damaged and 1,225 missing. Action was taken to repair or restore 712 marks. A very large number of marks were missing in the Wards' estates in Midnapore, but all of them have been restored. Good action was taken also in Khulna.

A sum of Rs. 363 was allotted during the financial year 1914-15 for the maintenance of pillars in estates where advance recoveries had been made under section 114(*2*) of the Bengal Tenancy Act. Besides this the Khas Mahal Department provided funds for the maintenance of marks in the Government and temporarily-settled estates, while in some cases the wards' estates and the zamindars bore the expense. On the whole, Rs. 453 was spent during the year under review in Government and temporarily-settled estates excluding the district of Darjeeling, Rs. 557 in wards' estates and Rs. 37 in zamindari estates.

80. **Utilization of settlement records.**—Settlement records appear to have been freely used in all departments of Government including the Civil Courts in dealing with matters relating to land, and, as in the previous year,

the local reports indicate a rapidly growing appreciation of their value. In Faridpur partition proceedings are being based on the settlement records, while in many districts the settlement records were used in land acquisition and cess revaluation proceedings. Magistrates and Police officers are reported to have freely used the record-of-rights and settlement maps whenever available in deciding cases under sections 107 and 145, Criminal Procedure Code. In Bakarganj 17,525 applications for copies of settlement records and connected papers were received during the year. Orders for a reprint of the village maps were received from Bakarganj and Chittagong.

81. **Promotions and prospects.**—During the year under report one Sub-Deputy Collector was promoted from the Settlement Department to the Provincial Executive Service, while three Settlement Kanungos were appointed Sub-Deputy Collectors. Babu Harakishore Biswas received during the year under review the title of "Rai Sahib." The scheme for the improvement of the pay of kanungos was also brought into force during the year.

82. **Tours.**—I was on tour regularly during the year. The major settlements and all minor operations in which work of any account was in progress were each visited at least twice.

83. **Settlement staff.**—The Settlement staff in the province consisted of 14 Civilians, 32 Deputy Collectors, 16 Munsiffs, 58 Sub-Deputy Collectors, 8 "outsider" Assistant Settlement Officers, and 231 kanungos including Revenue Officers. Mr. Sachse was as energetic in inspection as ever. He has received the thanks of Government for the success he has made of the officers' training camp during the period it has been in his charge. Mr. Milligan has now left the Jalpaiguri Settlement with his task practically completed, a task which had been performed throughout with zeal and ability. Under Mr. Nelson the Rajshahi Settlement has developed quietly and methodically. The Midnapore Settlement in Mr. Jameson's hands is a model of detailed organization. Mr. Ascoli has maintained his reputation for organization and for the complete finish of every branch of work. It will not be his fault if the settlement does not close with punctuality. Mr. Prance's care and attention to detail was again marked in the conduct of the Faridpur Settlement which is about to close. Mr. Thompson organized the Tippera-Noakhali Settlement with success, paying particular attention to the accuracy of the survey and to good field-*bujharat* in order to ensure a good settlement. The Civilian Charge Officers, Messrs. Robertson, Klingenstein, Henderson, Davies, Donovan and Fawcus all did good work. Rai Hara Kishore Biswas Saheb's departure from the Department is a considerable loss to it. Amongst other officers the most conspicuously successful officer was Babu Ramesh Chandra Sen, Sub-Deputy Collector, Bakarganj.

It is with considerable regret that I have to record the death from cholera in Midnapore of Mr. Quinlan during the field season. He was an officer of promise and liked by both landlords and tenants. Of the Deputy and Sub-Deputy Collectors, it is always a difficult matter to make a selection of names which should be mentioned. Some of those who did good work, are the following :—

Deputy Collectors.

1. Babu Gyanendra Nath Ray.
2. „ Suresh Chandra Basu.
3. Mr. A. J. W. Harris.
4. Maulvi Ataur Rahman.
5. Babu Bijoy Bihary Mukherji.
6. Maulvi Shams-ud-din Muhammad Abdul Aziz.
7. Maulvi A. K. Kabiruddin Ahmad.
8. Babu Jiban Chandra Chatarji.
9. „ Sailendra Nath Basu Mullick.
10. Babu Kunja Lal Ghosh.
11. Maulvi Saiyid Muazzamuddin Husain.
12. Mr. B. A. Hollow.
13. Babu Shital Chandra Chatarji.
14. „ Karali Charan Ganguly.
15. Mr. J. R. Johnson.
16. Babu Satamanyu Mukharji.
17. „ Sudhir Chandra Ghosh.
18. „ Kalipada Maitra.

Munsifs.

1. Babu Ramesh Chandra Sen.
2. Maulvi Paziruddin Ahmed.

Technical Advisers.

1. Mr. I. Newton.
2. Babu Lal Mohan Basu.

Sub-Deputy Collectors.

1. Babu Jogesh Chandra Mitra.
2. Maulvi Abdul Jalil Khan.
3. Babu Girish Chandra Das.
4. „ Chinta Haran Das Gupta.
5. „ Brojendra Nath Das Gupta.
6. Maulvi Quazi Muhammad Muhiuddin.
7. Babu Anath Bandhu Chatterji.
8. „ Harendra Nath Mazumdar.
9. Maulvi Shams-uz-zoha Ahmad.
10. Babu Bhubaneswar Sanyal.
11. „ Probhat Chandra Banarji.

My Personal Assistant, Babu Mahendra Nath Gupta, has given valuable assistance during the year.

84. In conclusion, I desire to convey the thanks of the Department to the Director of Surveys for the assistance which he has extended both to the Settlements and myself and in particular for his assistance in the portions of the new Manual dealing with Survey. I also take this opportunity of thanking the Commissioners and the District Officers in whose charge settlement has been proceeding for the help which they have always given the Department.

I have the honour to be,

SIR,

Your most obedient servant,

M. C. McALPIN,

Director of the Department of Land Records, Bengal.

APPENDICES.

[*N.B.*—Figures in these Appendices which do not agree with those in the last year's Report are revised figures.]

APPENDIX I.

Progress of Survey and the Preparation of a record-of-rights in the Province.

Summary.

NAME OF DISTRICT.	Area (excluding large rivers).	Reserved forests.		Unsettled waste at the disposal of Government.		Settled area to which the Bengal Tenancy Act has not been extended.		Settled area to which the Bengal Tenancy Act has been extended.			
		Area.	Scale and date of survey.	Area.	Scale and date of survey.	Area.	Date of cadastral survey under other Acts.	Total.	Area in which a record-of-rights—		
									Has been finally published.	Is in course of preparation.	Remains to be prepared.
1	2	3	4	5	6	7	8	9	10	11	12
Burdwan	2,678	...	...	...	...	...	...	2,678	85	14	2,579
Birbhum	1,740	...	...	...	...	...	...	1,740	209	...	1,531
Bankura	2,621	...	...	...	...	...	...	2,621	51	4	2,566
Midnapore	5,407	...	...	...	...	...	...	5,407	1,069	3,842	491
Hooghly	1,723	...	...	...	...	...	...	1,723	50	1	1,672
24-Parganas	4,844	1,758	...	1,191	...	...	...	1,895	124	28	1,743
Calcutta	8	...	...	...	...	8	1911 in respect of 4 square miles.	...	...	...	...
Nadia	2,725	...	...	...	...	...	...	2,725	52	...	2,673
Murshidabad	2,014	...	...	...	...	...	...	2,014	131	36	1,847
Jessore	2,925	...	...	...	...	...	...	2,925	82	...	2,843
Khulna	4,765	2,089	...	...	...	...	...	2,676	246	5	2,425
Dacca	2,750	...	...	...	...	...	...	2,750	512	2,238(b)	...
Mymensingh	6,316	...	...	...	...	...	...	6,316	3,396	3,036(d)	...
Faridpore	2,461	...	...	...	...	...	...	2,461	2,396(b)	...	10(a)
Bakarganj	3,490	131	16″=1 mile district operation 1905-06.	516	16″=1 mile district operation.	...	...	2,427	2,427	...	...
Chittagong	2,492	564	4″=1 mile scale, 1888-89.	486	16″=1 mile 1888-89.	...	416	1,442	1,374	...	68
Noakhali	1,649	...	...	...	...	...	...	1,649	558	834	257
Tippera	2,499	...	...	...	...	...	...	2,499	991(c)	...	1,386
Rajshahi	2,616	...	...	...	...	...	...	2,616	68	2,538	10
Dinajpur	4,132	...	...	...	...	...	...	4,132	517	...	3,615
Jalpaiguri	2,924	505	4″ scale season 1907-08.	...	...	332	4″ = 1 mile 1907-10.	2,087	2,087	Nil	Nil
Rangpur	4,090	...	...	...	...	...	...	4,090	143	...	3,947
Bogra	1,359	...	...	...	...	...	...	1,359	53	...	1,306
Pabna	1,839	...	...	...	...	...	...	1,839	68(c)	...	1,648
Malda	1,832	...	...	...	...	...	...	1,832	88	4	1,743
Darjeeling	1,164	436	4″=1 mile 1905.	22	...	706	Kalimpong 1902-03, Siliguri 1897-98, West Tista 1906-07, Act V of 1875.	...	...	...	...
Total ...	73,103	5,483	...	2,215	...	1,512	...	63,893	17,027	12,732	34,360

(*a*) Ten square miles transferred from Jessore and Khulna.
(*b*) Includes Diara strips in Tippera and Pabna.
(*c*) *See* Faridpur for river strips done from there.
(*d*) Includes diara strips in Rangpur, Pabna, Bogra and Tippera.

APPENDIX II.

General Progress in Survey and Settlement work during the year ending 30th September 1915.

District Operations.

Branch of Work.	Units of report.	Dacca.					Mymensingh.					Faridpur.					Midnapore.	
		Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.	Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.	Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.	Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Traverse Survey (under Settlement Officer.)	Square miles ...	1st Oct. 1909	3,250	...	...	...	1907	6,631	...	...	...	1904-05	2,666	...	...	...	1910	4,133
Cadastral Survey	Ditto	...	...	...	...	... (a) 3,157	...	...	...	...	...	...	...	...	...	1,064	...	...
Khanapuri	Ditto	...	...	...	...	3,157	...	...	1,102	1,102	6,453	...	...	...	...	2,696	...	...
	Plots	...	...	...	...	3,389,316	...	...	1,102	1,102	6,432	...	...	...	...	2.696	...	...
Preliminary Office Work ...	Square miles ...	...	...	...	...	(b) 5,130	...	...	808,265	808,265	5,658,726	...	...	...	...	3,100,000	...	...
Bujharat	Ditto	...	...	...	...	3,130	...	...	1,102	1,102	6,432	...	...	...	...	2,696	...	...
	Plots	...	...	...	...	3,419,917	...	...	1,126	1,058	6,364	...	...	...	...	2,696	...	...
	Interests	...	...	...	...	1,461,046	...	...	840,324	768,522	5,608,828	...	...	...	...	3,100,000	...	...
Attestation	Square miles ...	...	...	600	587	3,130	...	...	323,409	292,758	1,664,676	...	...	...	...	1,600,000	...	...
	Interests	...	...	208,750	209,059	1,423,104	...	...	897	897	5,380	...	...	...	...	2,696	...	...
Draft publication	Square miles ...	...	...	600	587	3,130	...	...	313,686	313,686	1,389,053	...	...	...	...	1,600,000	...	...
Objection under Section 103A	Ditto	...	...	600	610	3,130	...	...	897	785	5,218	...	...	...	...	2,696	...	...
	Cases	...	...	10,050	9,022	43,417	...	...	907	607	5,023	...	...	...	...	2,696	...	...
Final Office Work— Jauch	Square miles ...	...	...	600	610	3,130	...	...	6,225	4,738	56,003	...	...	...	...	60,744	...	...
Statistics...	Ditto	...	...	719	587	3,130	...	...	892	607	4,908	...	...	...	...	2,696	...	...
Preparation of 16" maps ...	Ditto	...	...	876	821	4,769	...	...	1,556	1,051	4,575	...	...	...	...	2,696	...	...
Topographical maps	Ditto	...	...	...	...	...	...	...	1,090	876	3,865	...	...	...	...	2,696	...	...
Preparation of final records	Ditto	...	...	960	919	4,100	...	...	400	265	800	...	...	90	90	2,696	...	...
	Interests	...	...	480,000	552,256	666,916	...	...	1,080	1,635	3,895	...	...	...	...	2,696	...	...
Final publication	Square miles ...	...	...	815	482	512	...	...	216,000	353,603	829,882	...	...	...	...	1,650,000	...	...
Recovery of costs ...	Ditto	...	...	815	535	565	...	...	1,346	1,162	3,396	...	...	...	...	2,696	...	...
	Amounts Rs.— (a) Voluntary	...	...	Rs. 5,00,000	Rs. 3,24,101	Rs. 343,867	...	...	Rs. 1,380	Rs. 1,069	Rs. 3,063	...	...	715	Rs. 574	2,555	...	...
	(b) By certificate				Rs. 3,453	Rs. 3,453	...	...	Rs. 6,62,000	Rs. 374,354	Rs. 10,71,865	...	...	Rs. 4,85,000	Rs. 2,01,698 Rs. 42,400	Rs. 15.38,382	...	...
Case work under section 108A ...	Cases	...	...	...	60	60	...	...	...	...	Rs. 2,403	...	...				...	...
,, ,, ,, 105	Do.	...	...	...	...	...	...	...	327	191	1,322	...	...	2,092	1,936	2,086	...	...
	Tenancies	...	...	...	531	531	...	...	...	...	...	...	...	25,494	25,494	45,523	...	...
,, ,, ,, 106 ...	Ditto	...	...	...	23	23	...	...	58,775	17,280	26,825	...	...	37,617	37,617	66,754	...	...
							...	...	1,543	287	1,046	...	...	4,966	4,966	12,349	...	...

NOTE—Actual programme of the year is entered and not the original programme. | (a) Actual area found after survey is 3,157 square miles. | (b) Difference in area between cadastral and *bujharat* is due to the areas transferred to Mymensingh.

APPENDIX II—*continued.*

General Progress in Survey and Settlement work during the year ending 30th September 1915.

District Operations—*concluded.*

Branch of work.	Units of report.	Midnapore—*concluded.*			Rajshahi.					Jalpaiguri.					Tipperra-Noakhali.				
		Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.	Date of inception of operations, *i.e.*, of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.	Date of inception of operations, *i.e.*, of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.	Date of inception of operations, *i.e.*, of commencement of traverse survey.	Estimated area in square miles under settlement.	Estimated area in square miles under settlement.	Work done— In the year under report.	Work done— Up to date.
		20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
Traverse Survey (under Settlement Officer.)	Square miles	...	...	...	1910	2,617	...	...	...	1906	2,924	...	...	...	1913	1,649	...	...	...
Cadastral Survey	Ditto	968	968	3,800[a]	...	...	826	846	2,538	...	2,037	...	...	2,037	...	...	730	706	706
Khanapuri	Ditto	968	968	3,843	...	...	826	844	2,534	...	2,037	...	...	2,037	...	...	730	706	706
	Plots	1,790,887	1,790,887	5,394,601	...	...	9,87,600	17,64,022	3,976,745	...	...	...	...	161,704	...	...	730,000	1,085,852	1,085,852
Preliminary Office Work	Square miles	968	968	3,532	...	...	826	822	2,534	...	2,037	...	...	2,037	...	...	730	706	706
Bujharat	Ditto	854[a]	855[a]	2,875	...	...	845	543	2,233	...	2,037	...	...	2,037	...	...	730	706	706
	Plots	1,655,081	1,659,369	3,618,192	...	...	17,96,000	13,27,676	35,87,294	...	...	...	...	161,704	...	...	730,000	1,109,298	1,109,298
	Interests	502,175	485 062	959,999	...	...	3,12,650	3,23,463	936,588	...	...	...	...	249,960	...	...	182,500	289,567	289,567
Attestation	Square miles	854	855	2,876	...	...	894	856	1,712	...	2,037	...	...	2,037	...	...	...	...	...
	Interests	502,175	485,062	959,999	...	...	3,30,780	368,258	654,314	...	...	...	...	249,960	...	...	...	...	...
Draft Publication	Square miles	854	856	2,877	...	...	894	894	1,712	...	2,037	...	...	2,037	...	...	...	...	...
Objection under section 103A	Ditto	854	856	1,921	...	...	931	833	1,667	...	2,037	...	...	2,037	...	...	...	...	...
	Cases	28,618	23,706	47,308	...	...	19,500	18.160	27,363	...	...	...	...	9,144	...	...	...	...	...
Final Office work— Jamch	Square miles	1,113	994	2,121	...	...	1,070	576	1,152	...	2,037	..	...	2,037	...	...	...	...	...
Statistics	Ditto	1,263	1,263	2,388	...	...	...	1,822	1,822	...	2,037	...	...	2,037	...	...	...	...	...
Preparation of 16" maps	Ditto	1,261	876	931	...	...	810	235	770	...	2,037	100	100	2,037	...	...	...	...	...
Topographical maps	Ditto	...	...	...	...	...	...	470	782	...	...	...	...	...	..	...	...	...	...
Preparation of final records	Ditto	1,639	1,287	1,382	...	...	875	39	39	...	2,037	...	...	2,037	...	...	...	...	...
	Interests	336,630	316,797	316,797	...	...	300,473	10,239	10,239	...	...	...	...	249,960	...	...	...	...	...
Final publication	Square miles	697	222	222	...	...	...	...		...	2,037	...	...	2,037	...	...	...	...	...
Recovery of cost	Ditto	...	...	...	...	...	...	...	...	...	998	500	350	848	...	...	...	...	...
	Amount Rs.— (*a*) Voluntary	...	...	...	...	...	...	...	...	...	630,459	347,384	154,380	451,357	...	...	...	...	...
	(*b*) By certificate	...	...	...	...	...	...	...	...	...	...			14,380	...	...	...	...	...
Case work under section 103A	Cases	...	...	...	...	...	...	...	...	...	...	21	21	21	...	...	...	...	...
,, ,, ,, 105	Do.	...	...	...	...	...	...	...	...	...	...	9,338	9,310	9,310	...	...	...	...	...
	Tenancies	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...
,, ,, ,, 106	Ditto	...	...	...	...	...	...	...	...	...	...	1,234	1,226	1,226	...	...	...	...	...

NOTE.—Actual programme for the year is entered and not the original programme.

[a] Excludes 47 square miles of revisional work in Pataspur.

General Progress in Survey and Settlement work done during the year ending the 30th September 1915.

Minor Operations.

Branch of work.	Unit of report.	Burdwan.			Bankura.			Hooghly.			24-Parganas.			Nadia.			Murshidabad.			Jessore-Khulna (Mokimpur Estate).		
		Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
				Rs.			Rs.			Rs.			Rs.			Rs.			Rs.			Rs.
Traverse Survey (under Settlement Officer).	Square miles ...	7·00	7·25	1,351	·82	·89	223	1·40	1·40	898	16·74	16·74	7,693	·03	·03	...	15·68	15·68	977	...	...	...
Cadastral Survey ...	Ditto ...	3·50	3·75	1,167	1·15	·99	381	1·40	1·40		16·74	16·74		·03	·03	...	15·68	15·38	2,755	...	...	...
Khanapuri	Ditto ...	7·52	6·99	2,362	1·32	1·01	205	1·40	1·40		16·74	16·74		·03	·03	...	15·68	15·68	1,326	...	...	...
	Plots	9,700	9,900	...	...	1,185	20	4,232	4,232		28,740	28,740		34	34	...	18,216	18,216				
Priliminary Office Work	Square miles ...	5·30	5·55	442	...	·01		1·40	1·40		20·54	12·12		...	...	...	15·68	8·41	608	...	...	...
Bujharat	Ditto ...	8·49	7·58	1,291	2,500	780	214	1	...		20·54	8·66		...	...	...	33·03	24·31	6,353	...	...	...
	Plots	11,766	10,582					1	...		20,540	12,518		...	...	...	44,723	38,516				
	Interests ...	2,827	2,698					1	...		5,125	3,838		...	...	...	11,939	10,257				
Attestation	Square miles ...	8·49	6·96	1,344	...	...	...	1·40	1·40		20·54	3·80		·08	·08	...	33·03	21·73	1,265	...	...	...
	Interests ...	2,827	2,419		2,500	746	272	76	76		5,125	950		31	31	...	11,939	9,710				
Draft Publication ..	Square miles ...	7·05	4·23	159	...	...	...	1	...		14·85	4·83		...	...	...	33·03	20·07	179	...	...	...
Objection under section 103A.	Ditto ...	9·50	9·50	2,241	...	...	...	...	...		14·85	4·83		...	...	...	...	...	...	...	...	...
	Cases	1,542	1,686		...	...	...	3	3	672	73	73		...	...	...	1,697	1,023	929	...	...	...
Final Office Work—																						
Janch	Square miles ...	15·26	12·23	2,265	...	...	...	4·40	3·40		4·80	4·80		...	...	...	17·03	2·63	483	...	...	...
Statistics	Ditto ...	...	...		...	...	...	4·40	3·40		4·80	1·66		...	...	...	17·03	2·63				
Preparation of 16″ maps.	Ditto ...	15·38	10·80	644	...	...	...	4·40	3·40		4·80	4·80		...	...	...	17·03	1·21				
Topographical maps	Ditto ...	...	...	...	...	...	...	...	...		...	...		...	...	...	...	...				
Preparation of final records.	Ditto ...	12·36	10·68	697	...	...	...	4·40	3·40		4·80	4·80		...	...	...	8·01	1·21	205	...	...	...
	Interests ...	10,525	4,739					1,960	1,060		1,200	1,200		...	...	...	...	...				
Final publication ...	Square miles ...	12·52	11·84	373	...	...	...	4·40	3·40	120	4·80	4·80		5·56	5·56	...	801	1·21				
Recovery of costs ...	Ditto ...	...	...	...	...	...	...	12	9		...	...		...	...	...	...					
Case work under section 108A.	Cases	7	7	1,309	...	...	...	2	...		...	...		...	...	...	...	...	...	38	38	5,56
Case work under section 105.	Do.	1,761	485		...	...	...	219	217	251	193	165		64	64	...	...	...	...	6,210	6,210	
Case work under section 106.	Do.	509	43		...	...	...	4	4		31	19		...	...	...	...	...	...	61	61	
Case work under section 112.	Do.	...	...	...	...	...	...	5	5		...	...		...	...	...	...	...	...	...	...	...
Case work under section 104E(1).	Do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Revision in temporarily-settled areas—																						
(*a*) Draft publication, section 103A.	Square miles ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*b*) Final publication	Ditto ...	...	...	...	...	...	...	3·40	3·40	...	...	...	...	...	...	...	·57	...	...	...	...	...
Total cost ...	Amount Rs. ...	...	...	15,645	...	...	1,320	...	...	1,941	...	...	7,693	...	...	170	...	...	15,080	...	...	5,561

General Progress in Survey and Settlement work done during the year ending the 30th September 1915.

Minor Operations—*concluded.*

Branch of work.	Unit of report.	Khulna.			Faridpur.			Bakarganj.			Tippera.			Noakhali.			Malda.			Jessore.		
		Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.
		24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
				Rs.			Rs.			Rs.			Rs.			Rs.			Rs.			Rs.
Traverse Survey (under Settlement Officer).	Square miles ...	5·6	5·6	511	4	4	40	4·50	4·50	353	...	...	...	...	...	...	·83	·35	81	...	...	...
Cadastral Survey ...	Ditto ...	5·6	5·6	511	5·50	5·50	540	4·50	4·50	738	...	...	...	...	...	...	·83	·35		...	...	...
Khanapuri	Ditto ...	...	...	...	5·50	5·50	140	5	5	517	...	...	...	...	...	...	...	...	...	...	...	...
	Plots	5,600	1,000	332	2,477	2,476		5,000	5,000		...	...	...	...	...	...	...	...	...	...	...	...
Preliminary Office Work	Square miles ...	...	...	...	...	...	...	5	5	230	...	...	...	8	8	...	...	...	...	...	...	...
Bujharat	Ditto ...	...	...	...	24·75	24·75	1,280	10	10	1,188	...	...	...	8	8	123	...	...	...	...	...	...
	Plots	...	...	...	22,556	22,556		10,000	10,000		...	...	...	3,023	3,023		...	...	...	...	...	...
	Interests ...	...	...	...	7,684	7,684		2,500	2,500		...	...	...	493	493		...	...	...	...	...	...
Attestation	Square miles ...	...	...	...	23	17·50	620	10	10	1,190	...	...	...	8	8	543	...	...	...	...	...	...
	Interests ...	...	...	...	5,750	4,624		2,500	2,500		...	...	...	493	493		...	...	...	...	...	...
Draft Publication ...	Square miles ...	...	...	...	23	17·50	...	10	10	636	...	...	...	23	23	77	...	...	...	...	...	...
Objection under section 103 A.	Ditto ...	...	...	...	...	...	50	10	10	1,079	...	...	...	...	...	...	...	...	...	...	...	...
	Cases	...	...	...	119	85	...	550	682		...	...	...	4,221	4,221	3,774	...	...	...	...	...	...
Final Office Work—																						
Jauch	Square miles ...	...	...	...	32	24	200	39	34	1,962	...	...	...	109	65·02	2,272	...	...	...	...	...	...
Statistics	Ditto ...	...	...	...	...	...	...	51	51	442	...	...	...	109	35·52	651	...	...	...	...	...	...
Preparation of 16" maps.	Ditto ...	...	...	...	42	26·50	100	53	52·50	1,029	...	...	...	109	18·50	...	...	...	...	...	...	...
Topographical Maps	Ditto ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Preparation of final records.	Ditto ...	...	...	...	39	21	100	50	42	1,377	...	...	...	109	23	220	...	...	...	...	...	...
	Interests ...	...	...	...	11,572	48·50		12,500	10,500		...	...	...	35,992	1,277		...	...	...	...	...	...
Final publication ...	Square miles ...	...	...	...	44	22	12	47	33	243	·08	·08	...	63	27·50	...	...	...	...	...	...	...
Recovery of costs ...	Ditt ...	...	...	...	...	...	...	...	...	...	...	...	...	888	303	80	...	...	...	...	...	...
Case work under section 108 A.	Cases							37	44	260	215	215	...	...	...	...	...	...	...	...	...	...
Case work under section 105.	Do.	7	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	224	
Case work under section 106.	Do.							...	...	...	...	...	...	...	...	...	...	...	...	...	4	
Case work under section 112.	Do	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Case work under section 104 E (1).	Do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	867
Revision in temporarily-settled areas—																						
(*a*) Draft publication, section 103 A.	Square miles ...	...	...	...	...	...	...	...	...	...	...	...	...	19	19	4,151	...	...	...	...	·32	
(*b*) Final publication	Ditto ...	...	...	...	...	...	...	57·75	52·75	4,953	·08	·08	...	63	27·50		...	...	...	...		
Total cost	Amount Rs. ...	...	...	1,354	...	...	3,082	...	...	16,196	...	...	107	...	...	11,891	...	...	81	...	...	867

APPENDIX III.

Return of Disputes and Inspections during the year ending the 30th September 1915.

DISTRICT.	Area in square miles cadastrally surveyed during the season.	Personal partal in linear miles.			Independent partals by linear miles.	Total number of plots khanapuried.	Number of plots tested.			Number of Boundary disputes decided.	Number of Internal disputes decided.	
		By Gazetted Officers.	By Kanungoes and Head Inspectors.	By Inspectors.			By Gazetted Officers.	By Kanungos and Head Inspectors.	By Inspectors.		During Khanapuri and Bujharat.	During attestation.
1	2	3			4	5	6			7	8	
Burdwan ...	3·75	2·85	...	30·81	1·52	9,900	1,032	...	1,970	...	195	443
Bankura ...	1·16	...	...	...	18·31 Chains.	...	...	...	...	...	...	248
Midnapore ...	968	512·43	569·71	2613 79	1,338·10	1,776,565	17,853	20,429	162,272	112	10,430	31,283
Hooghly	1·40	·50	...	2·72	·72	4,232	425	...	817	...	2	...
24-Parganas ...	16·74	...	...	...	...	28,740	3,390	...	6,171	...	158	14
Nadia	·03	...	...	...	...	34	...	34	...	...	...	2
Murshidabad ...	15·68	5·20	...	20·36	...	18,216	1,020	...	3,150	4	75	577
Khulna	5·6	...	...	196·05	...	1,000	50	...	...	...	...	...
Dacca	...	...	...	...	...	...	...	...	...	13	...	1,741
Mymensingh ...	1,102	202	2,492	...	...	808,265	(Not counted.)	(Every plot tested at Bujharat.)	...	316	8,626	6,213
Bakarganj ...	4·50	6·50	14	...	...	5,000	987	500	...	...	80	12
Noakhali ...	706	943	2,662	...	...	1,088,852	...	75,991	...	4	4,696	...
Rajshahi ...	826	142	3,115	...	...	1,764,022	3,758	86,049	...	249	2,051	6,905

APPENDIX IV.

Progress in revision of Land Revenue during the year ending 30th September 1915.

District.	Number of estates under revision.	Total area in acres.	Area in which rent-roll has been draft published.		Objections under Section 104E.		Area in which rent-roll confirmed under Section 104E.	Effect of the rental of raiyats.									Area in which record-of-rights finally published.	Number of estates in which revision of land revenue completed.	Financial result.		Percentage of increase of rent.	Percentage of increase of revenue.
								Old rent.	New rent.	Amount of increase due to—					Amount of decrease due to—				Old revenue	New revenue.		
			In the year under report.	Up to the end of the year under report.	Pending for decision	Decided.				Increase in size.	Extension of cultivation.	Increased fertility of soil.	Rise in prices.	Neighbouring rates	Decrease in area.	Deterioration of the soil.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
								Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.					Rs.	Rs.		
Hooghly	9	2,101	1,362	1,862	...	5	1,862	4,166	10,854	559	2,070	1,687	582	1,791	...	...	3	9	4,028	10,388	160·53	157·89
Nadia	16	155	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	16	1,748	2,213	1·09	26·60
Murshidabad	5	1,084	...	776·63	...	...	776·63	1,629	1,575	...	...	...	...	...	54	...	776·63	3	1,140	1,134	...	·52
Jessore	1	204	...	...	...	...	...	260	412	...	...	...	...	...	...	...	204	1	260	412	58·65	58·65
Dacca	457	53,992	19 square miles.	105 square miles.	1	157	77 square miles.	81,324	1,44,462	26,313	11,227	3,094	3,221	19,283	...	...	16 square miles.	423	60,011	1,21,468	78	102
Mymensingh	90	25,835	19,321	...	404	....	6,514	6,945	10,843	...	557	...	557	2,784	...	...	6,514	14	5,532	8,365	56	51
Faridpur (petty) ...	38	15,360	9,600	14,720	...	5	10,240	13,303	17,456	1,140	...	2,952	62	...	...	...	14,080	25	9,408	16,650	31	73
Bakarganj	62	...	36,960	33,760	...	30	18,880	24,716	34,748	10,032					...	...	21,120	48	40,546	50,370	40	24
Tippera	1	50	50	50	...	...	50	140	180	40					...	...	50	1	140	180	29	29
Noakhali (petty) ...	25	74,026	49,842	70,817	...	2,286	4,417	6,978	7,003	...	256	183	177	134	725	...	17,434	7	3,998	4,865	10	22
Jalpaiguri	1 square miles of Sonthal colony.	4,480	4,480	4,480	4	4	...	...	...	...	...	...	...	...	...	...	4,480	Sonthal colony.	2,159	2,638	...	22·1

APPENDIX V.

Return of Rent-settlement work in areas not under revision of Land Revenue during the year ending 30th September 1915.

DISTRICT.	Commutation under section 40.			Proceedings under section 109(c) (West Bengal District only).				Class of tenants.	Proceedings under section 105.										
									Number of tenants for whom a fair rent has been determined.	Former rent.	New rent.	Difference, per cent, + or −	Analysis of variation in the case of raiyats.						
													Amount of increase due to—					Amount of decrease due to—	
	Number of cases dealt with.	Commutation allowed.	Commutation refused.	Number of tenants.	Rent according to landlord.	Rent legally payable.	Rent settled by compromise.						Increase in area.	Extension of cultivation.	Increased fertility of soil.	Rise in prices.	Neighbouring rates.	Decrease of area.	Deterioration of the soil.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
					Rs.	Rs.	Rs.			Rs.	Rs.					Rs.	Rs.		
Hooghly	...	...	...	...	...	...	...	Raiyats with existing rents.	31	375	438	+ 17	.....	.....	.....	63	...	...	...
								Raiyats with newly assessed rent.	186	.....	657	.....	.....	.....	.....	.....	...	...	...
24-Parganas	...	...	...	...	...	...	...	Raiyats	165	283	561	+ 98·23	298	.....	.....	.....	...	...	...
Jessore and Khulna (Mokimpur).	...	...	...	...	...	...	...	Tenure-holders ...	429	5,453	6,640	+ 22	(Not reported).						
								Raiyats	1,632	6,083	7,519	+ 24							
								Under-raiyats ...	120	86	86	.....							
Jessore	...	...	...	...	...	...	...	Tenure-holders ...	4	1,221	1,429	+ 17·07							
								Raiyats	217	1,658	2,111	+ 27·32							
Dacca	214	121	93	...	...	...	...	Tenure-holders ...	4	3	10	+ 41·*	.....	.....	.....	.....	...	...	...
								Raiyats	542	2,564	3,481	+ 36	671	.....	.....	246	...	...	...
Mymensingh	15	15	...	...	...	...	...	Settled raiyats ...	17,280	2,04,925	2,65,085	+ 29	20 per cent.	2 per cent.	.....	5 per cent.	2 per cent.	...	...
Faridpur (including river strips of Tippera and Pabna).	...	...	...	...	...	...	...	Tenure-holders ...	2,571	30,975	37,303	+ 21	.....	.....	.....	.....	...	...	...
								Raiyats	18,665	1,18,268	1,45,060	+ 23	10,933	397	79	14,981	402	...	...
Tippera	...	...	...	...	...	...	...	Raiyats and tenure-holders	215	.....	1,414	.....	1,414					...	...
Jalpaiguri	...	...	...	...	...	...	...	Tenure-holders ...	4,106	1,35,948	1,71,153	+ 26	.....	.....	.....	.....	...	...	...
								Raiyats	5,103	58,898	70,099	+ 18·8	.....	.....	.....	11,102	...	...	...
								Under-raiyats ...	98	1,640	1,894	+ 15·5	.....	...	.....	254	...	...	...

* The enhancement has been in one case only from Rs. 3 to 4. In other 3 cases the old rent was *nil*. The percentage of enhancement has been worked out on the basis of new rent of Rs. 4 in place of old rent Rs. 3.

APPENDIX VI.

Results of Appeals during the year ending 30th September 1915.

NAME OF ESTATE OR TRACT UNDER SETTLEMENT.	Nature of case.	Pending from previous year.	Instituted during the year.	Disposed of during the year.	Balance pending.	Upheld.	Modified.	Revised.	Cases returned for retrial.
1	2	3	4	5	6	7	8	9	10
Burdwan	.....	...	...	...	...	...	...	...	...
Midnapore	Boundary disputes	Nil	23	21	2	19	...	2	...
	Fine appeals ...	Nil	22	22	Nil	20	1	1	...
	Miscellaneous (civil) appeals.	1	12	13	Nil	8	...	4	...
Hooghly	Section 105 ...	74	64	115*	23	100	11	...	...
	Do. 106 ...	5	16	17†	4	13	1	...	...
24-Parganas	Do. 105 ...	13	3	...	16	...	...	...	...
	Do. 106 ...	12	1	...	13	...	...	...	...
Nadia	Do. 105 ...	2	...	2	...	2	...	...	...
Murshidabad	Boundary disputes	2	4	6	...	4	...	...	...
Jessore-Khulna (Mokimpur Estate).	Section 105 ...	...	9	...	9	...	...	...	...
	Do. 106 ...	...	2	2	...	2	...	...	...
Jessore	Do. 105 ...	3	221	224	...	...	...	...	...
Dacca	Fine cases ...	...	2	2	...	1	1	...	...
Mymensingh	Section 105 ...	37	172	157	52	120	34	3	3
	Do. 106 ...	18	89	62	45	31	19	...	2
Faridpur (including river strips of Tippera and Padma).	Do. 105—								
	Special Judge ...	86	1,035	412	709	301	87	2	22
	High Court ...	...	9	...	9	...	...	...	...
	Section 106—								
	Special Judge ...	33	288	281	40	59	217	3	2
	High Court ...	...	124	...	124	...	...	...	...
Tippera	Section 106 ...	...	1	...	1	...	...	...	...
Noakhali (district operations) ...	Boundary disputes	...	3	2	1	2	...	...	...
Ditto (petty operations) ...	Ditto ...	6	...	6	...	4	1	1	...
	Appeals under section 104 G.	...	162	21	141	2	...	7	12
Jalpaiguri	Section 105 ...	...	24	14	10	10	...	...	4
Ditto (pargana Baikunthapur).	Do. 106 ...	26	236	203	59	165	20	11	7

* Includes 4 cases remanded by the Special Judge.
† ,, 3 ,, ,,

APPENDIX VII.

Nature and number of Holdings recorded in each Settlement during the year ending 30th September 1915.

DISTRICT.	Name of each tract under settlement.	NUMBER OF KHATIANS RECORDED IN THE NAME OF—												
		Proprietor—		Tenure-holder's cultivating possession.	Raiyats at fixed rates or fixed rents.	Settled raiyats.	Occupancy raiyats.	Non-occupancy raiyats.	Rent-free holders.		Unoccupied.	Government.	Total.	Under-raiyats.
		As private lands.	Not as private lands.						Service tenures.	Others.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Burdwan	Private Estates	...	...	21	39	1,126	17	12	9	359	4	1	1,588	56
	Grand Trunk Road ...	...	...	10	...	545	26	123	...	...	35	92	331	41
Hooghly	Government Estates ...	...	...	1	207	640	...	56	6	141	5	4	1,060	253
24-Parganas ...	Private Estates ...	6	...	10	...	239	1	261	5	16	9	6	553	305
Nadia	Government and temporarily-settled private Estates.	...	8	...	...	58	5	12	...	...	..	...	83	12
Murshidabad ...	Ditto ditto ...	...	1	2	...	173	...	37	...	...	3	1	217	...
Jessore	Temporarily-settled private Estates.	2	4	3	3	181	...	...	...	19	...	1	213	488
Dacca	.....	...	8,934	6,508	458	150,428	125	7,238	551	3,334	632	227	178,436	2,201
Mymensingh ...	District operation ...	...	23,036	32,352	2,196	219,671	490	9,300	3,542	5,294	980	213	297,074	16,612
Bakarganj ...	Government and temporarily-settled private Estates.	...	46	18	...	1,264	238	44	...	1	...	46	...	296
NoaKhali ...	Ditto ditto ...	...	...	...	...	...	...	492	...	...	1	...	493	...
Rajshahi ...	District operations ...	...	3,598	10,783	3,486	101,451	2,001	9,130	3,860	5,351	...	757	260,418	87,261

Out of which 164 are non-agricultural.

APPENDIX VIII.

Progress made in recovery of costs during the year ending 30th September 1915.

Division.	District.	Estate or tract under settlement.	Demand (outstanding *plus* current).			Collections.							Balance.		
			Landlord's share.	Occupier's share.	Total.	Landlord's share.			Occupier's share.			Grand total collected.	Landlord's share.	Occupier's share.	Total.
						Voluntary.	By certificate.	Total.	Voluntary.	By certificate.	Total.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
A.—*Imperial operations.*															
Dacca	Dacca	.....	3,25,000	1,75,000	5,00,000	(Separate figures not available)				.....	.....	3,27,554	.....	.....	1,72,446
Dacca	Mymensingh	District operation	.....	.....	.....	1,12,200	.....	1,12,200	2,62,154	.....	2,62,154	3,74,354	.....	.....	.....
Dacca	Faridpur	Faridpur (including river strips of Pabna and Diara).	.....	.....	4,85,348	2,01,035	42,400	2,43,435	.....	.....	.....	2,43,435	.....	.....	2,41,913
Rajshahi	Jalpaiguri	District operation, (Permanently-settled portion).	69,053	2,78,331	3,47,384	7,256	.....	7,256	1,63,440	11,966	1,75,406	1,82,662	61,797	1,02,925	1,64,722
B.—*Minor operations.*															
Burdwan	Bankura	Petty Zemindari estates	3,733	3,010	6,743	.....	.....	.....	1,092	810	1,892	1,892	3,733	1,118	4,851
Burdwan	Hooghly	Ditto ditto	1,704	8,019	9,723	212	1,157	1,369	1,218	4,765	5,983	7,352	335	2,036	2,371
Presidency	24-Parganas	Ditto ditto	6,409	.....	6,409	3,383	.....	3,383	.....	.....	.....	3,383	3,026	.....	3,026
Presidency	Nadia	Ditto ditto	55	.....	55	.....	.....	.....	.....	.....	.....	.....	55	.....	55.
Chittagong	Noakhali	Ditto ditto	585	303	888	.....	.....	.....	.....	303	303	303	585	.....	.....

APPENDIX IX.

Expenditure for work done (including all Book-debit charges) during the year ending 30th September 1915.

Branch of Work.	Dacca.						Mymensingh.						Faridpur.						Midnapore.		
	In the year under report.			Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.			In the year under report.		
	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.
Traverse Survey (done by Settlement Officer).	...	...	...	...	4,092	...	...	...	...	...	...	...	...	...	...	1,064	28,216	26	...	...	...
Cadastral Survey	...	34	...	3,157	2,86,355	91	1,102	93,764	85	6,453	6,24,759	97	...	...	...	2,696	3,28,960	122	968	1,44,623	149
Khanapuri	...	20	...	3,157	1,52,197	48	1,102	32,439	29	6,432	2,28,081	35	...	...	...	2,696	1,31,066	49			
Preliminary office work ...	...	168	...	3,125*	42,092	13	1,102	12,613	11	6,432	1,00,451	16	...	...	...	2,696	52,677	19	968	43,598	45
Bujharat	...	257	...	3,125*	2,60,195	83	1,058	75,629	71	6,364	4,72,268	74	...	...	...	2,696	3,65,186	135	855	1,20,298	140
Attestation	587	34,897	59	3,125*	2,58,819	83	897	67,304	75	5,380	3,28,604	62	...	...	...	2,696	1,68,479	62			
Objections	610	6,815	11	3,125*	38,647	12	607	8,385	14	5,023	82,888	16	...	...	...	2,696	1,05,596	39	854	10 889	13
Final office work—																					
Janch	610	3,536	6	3,125*	28,313	9	607	10,704	18	4,908	56,974	12	...	...	...	2,696	1,40,461	52	994	35,262	36
Statistics	1,760†	17,192	10	3,125*	50,485	16	1,051	5,162	5	4,575	27,523	6	...	6,417	...	2,696	42,528	16	1,263	4,686	4
Preparation of 16" maps ...	821	4,252	5	1,769	9,908		876	4,988	6	3,865	27,770	7	...	...	...	2,696	31,548	12	876	1,901	2
Topographical maps ...	...	...	...	...	...	...	265	600	2	800	1,349	1	90	399	4	2,696	11,185	4	...	...	...
Final records	919	66,648	73	1,100	84,822	77	1,635	55,491	34	3,396	1,43,259	42	...	883	...	2,696	2,81,487	104	...	46,140	...
Computation and recovery ...	...	12,941	...	565	16,056	29	1,089	8,133	8	3,063	29,261	10	574	10,940	19	2,555	51,016	19	...	3,216	...
Case work	...	755	...	...	755	...	400	13,477	33	1,198	31,222	26	...	53,798	...	...	1,05,560	...	...	...	...
Section 112	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6,359	...
Supervision	...	43,276	...	3,125	3,55,465	114	...	97,726	...	...	6,61,879	...	...	23,652	...	...	4,17,120	...	...	58,486	...
Supplies, services and contingencies—																					
Ordinary	...	45,727	...	3,125	2,84,661	85	...	50,800	...	...	3,76,696	...	...	11,744	...	...	5,74,289	...	...	51,429	...
Press																				26,555	
Jamabandi	...	9,233	...	...	26,988	...	...	4,092	...	...	7,573	...	...	...	...	...	39,855	...	...	180	...
Diara	...	7,855	...	...	22,291	...	...	4,819	...	...	4,819	...	...	119	...	...	21,076	...	...	...	...
Partition	...	616	...	...	8,291	...	...	...	...	...	...	...	...	...	...	...	23,167	...	...	...	...
Cess revaluation	...	18,051	...	...	47,274	...	...	...	...	...	...	...	...	...	...	...	44,340	...	...	2,946	...
Total Cost ...	...	2,72,273	...	...	19,77,616	...	...	5,46,126	...	...	32,05,512	...	...	1,07,862	...	...	29,62,912	...	...	5,56,568	...

NOTE.—Actual programme of the year is entered and not the original programme.

* Excludes the area of the Dacca Town.

† The figures include draft statistics prepared *pari passu* with attestation.

Expenditure for work done (including all Book-debit charges) during the year ending 30th September 1915.

BRANCH OF WORK.	MIDNAPORE—*concluded.*			RAJSHAHI.						JALPAIGURI.						TIPPERA AND NOAKHALI.					
	Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.		
	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost	Cost-rate.
	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.
Traverse Survey (done by Settlement Officer).	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cadastral Survey	3,800*	4,79,227	126	846	86,715	105	2,538	2,60,259	102	...	...	...	2,037	2,39,564	118	706	79,895	113	706	79,895	113
Khanapuri				844	55,215	67	2,534	1,39,178	55	...	...	...	2,037	1,08,433	53	706	31,035	44	706	31,035	44
Preliminary Office Work ...	3,532	1,59,768	43	822	11,352	14	2,534	34,466	14	...	...	...	2,037	69,207	34	706	12,114	17	706	12,114	17
Bujharat	2,875	2,60,087	90	543	88,168	162	2,233	2,41,075	108	...	...	...	2,037	1,67,601	82	706	64,750	91	706	64,750	91
Attestation				856	65,015	73	1,712	1,16,328	69	...	...	...	2,118	1,03,097	48	...	...	...	...	...	...
Objections	1,921	28,182	14	833	17,351	19	1,667	25,152	15	...	...	...	2,118	26,281	12	...	...	...	...	...	...
Final office work—																					
Janch	2,121	70,371	33	576	17,472	26	1,152	26,792	23	...	...	...	2,037	1,05,906	52	...	...	...	...	...	...
Statistics	2,388	6,743	3	1,822	6,811	3	1,822	7,072	4	...	748	...	2,037	24,150	11	...	...	...	...	...	...
Preparation of 16″ maps ...	931	2,946	3	285	3,247	7	770	3,247	4	100	934	...	2,037	37,277	18	...	...	...	...	...	...
Topographical maps ...	...	...	...	470	690	1	782	4,874	5	...	...	...	...	...	...	...	...	...	...	...	...
Final records	...	51,895	...	39	6,405	...	39	6,405	...	...	300	...	2,037	59,113	29	...	...	...	...	...	...
Computation and recovery ...	...	3,216	...	...	...	...	...	...	...	350	8,529	...	848	16,105	...	...	...	...	...	...	...
Case work	...	...	...	...	...	...	...	...	...	10,572	26,648	...	...	41,615	...	...	...	...	...	...	...
Section 112	...	10,404	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Supervision	...	2,19,893	...	...	99,876	...	...	2,18,615	...	...	40,900	...	...	3,26,201	...	...	51,344	...	...	51,344	...
Supplies, services and contingencies—																					
Ordinary	...	3,20,468	...	...	1,06,032	...	...	2,72,714	...	...	12,347	...	...	1,85,717	...	...	29,575	...	...	29,575	...
Press	...																				
Jamabandi	...	...	...	...	...	...	...	...	...	...	550	...	...	1,25,676	...	...	...	...	...	...	...
Diara	...	1,221	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Partition	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cess revaluation	...	12,297	...	...	8,380	...	...	12,246	...	...	535	...	...	22,049	...	...	...	...	...	...	...
Total cost ...	...	16,26,718	...	...	5,72,730	...	...	13,68,423	...	...	91,491	...	...	16,57,992†	...	...	2,68,713	...	...	2,68,713	...

NOTE.—Actual programme of the year is entered and not the original programme.

* Excludes 47 square miles of revisional work in Pataspur.

† Excludes tea garden, forest and miscellaneous.

APPENDIX X.

Result of inspection of Survey Marks during the year ending 30 h September 1915.

Division and District.	Total number of estates surveyed under the Survey Act or Bengal Tenancy Act.	Total number of estates in which permanent boundary marks were erected.	Number of marks erected in estates mentioned in column 3.	Number of marks inspected during the year under report.	Result of inspection of marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
GOVERNMENT AND TEMPORARILY-SETTLED ESTATES.									Rs. A. P.	
Burdwan	...	17	376	290	250	19	21	17	24 0 0	
Birbhum	3	3	14	14	14	...	...	...	.....	
Bankura	7	7	30	30	30	...	...	...	.....	
Midnapore	62	62	2,973	2,881	2,676	103	102	4	.....	
Hooghly	39	49	998	860	735	65	60	37	142 0 9	
24-Parganas	24	23	1,972	1,842	1,740	66	36	7	3 4 0	
Nadia ...	47	32	1,068	999	988	2	9	...	50 0 0	
Murshidabad	66	61†	940	452	340	6	106	22	Rupees 36-8 met from Khasmahal grant.	
Jessore ...	...	3	34	34	34	...	...	...	.....	
Khulna ...	26	17	233	233	202	10	21	65	Rupees 196-11 met out of Rs. 250 sanctioned by the Commissioner.	
Bakarganj	174	111	345	21	21	...	...	...	.....	
Mymensingh	34	2	458	408	278	100	30	...	.....	
Chittagong	5	5	1,495*	668	641	...	27	...	.....	
Tippera	119	...	301	78	55	1	15†	1	Rupee 1 met from Khasmahal contingency.	
Malda ...	16	16	158	158	158	...	...	...	.....	
Bogra ...	2	2	478	225	225	...	...	...	.....	
Darjeeling	4	3	193	193	193	...	20	20	Cost of restoration met by the tenants concerned.	
Total	647	413	12,066	9,379	8,560	372	447	173		
WARDS ESTATES.										
Burdwan	...	1	9	9	9	...	...	...	.....	
Bankura	23	23	316	153	153	...	...	...	.....	
Midnapore	2	2	1,230	1,230	751	...	479	479	Rupees 549-8-7 met from grants made by Director of Land Records.	
Murshidabad	1	1	117	117	117	...	...	...	.....	
Jessore	1	1	22	8	5	...	3	3	Rupees 7 realised from conterminous tenants under section 56 of the Survey Act.	
Bakarganj	3	3	1,096	1,096	1,057	5	34	5	.....	
Tippera	2	2	3,054	292	161	15	116	...	.....	
Dinajpur	2	2	683	151	151	...	...	...	.....	
Malda ...	3	3	103	103	103	...	...	...	.....	
Total	37	38	6,629	3,159	2,507	20	632	487		
ZAMINDARY ESTATES.										
Burdwan	70	63	351	314	312	...	2	...	.....	
Birbhum	4	4	384	384	384	...	...	...	.....	
Bankura	61	61	299	294	255	2	29	15	Cost met by the Burdwan Raj Estate.	
Midnapore	2	2	67	9	9	...	...	...	.....	
Hooghly	35	48	234	158	158	....	...	...	.....	
24-Parganas	43	35	309	28	25	...	3	3	9 5 0	
Murshidabad	17	12	1,751	1,351	1,326	25	...	...	.....	
Nadia ...	2	2	37	37	32	...	...	...	.....	
Jessore ...	4	21	525	51	51	...	...	...	.....	
Khulna ...	15	15	494	205	174	13	18	13	Rupees 28-2 out of Rs. 33 sanctioned by the D. L. R.	
Bakarganj	3,025	3,025	4,507	4	3	1	...	...	.....	
Tippera ...	525	...	191	47	47	...	...	...	.....	
Bogra ...	2	2	35	15	15	...	...	...	.....	
Malda ...	4	4	44	494	401	2	91	21	Cost of restoration met by zamindars concerned.	
Rangpur ...	17	2	81	77	73	1	3	...	.....	
Total	3,823	3,296	9,756	3,429	3,234	49	146	52		
GRAND TOTAL	4,507	3,747	28,441	15,967	14,301	441	1,225	712		

* Includes pillars in zamindari estates which are intermixed.
† Washed away.

APPENDIX XI.

Statement showing maps in stock received and sold during the financial year ending 31st March 1915.

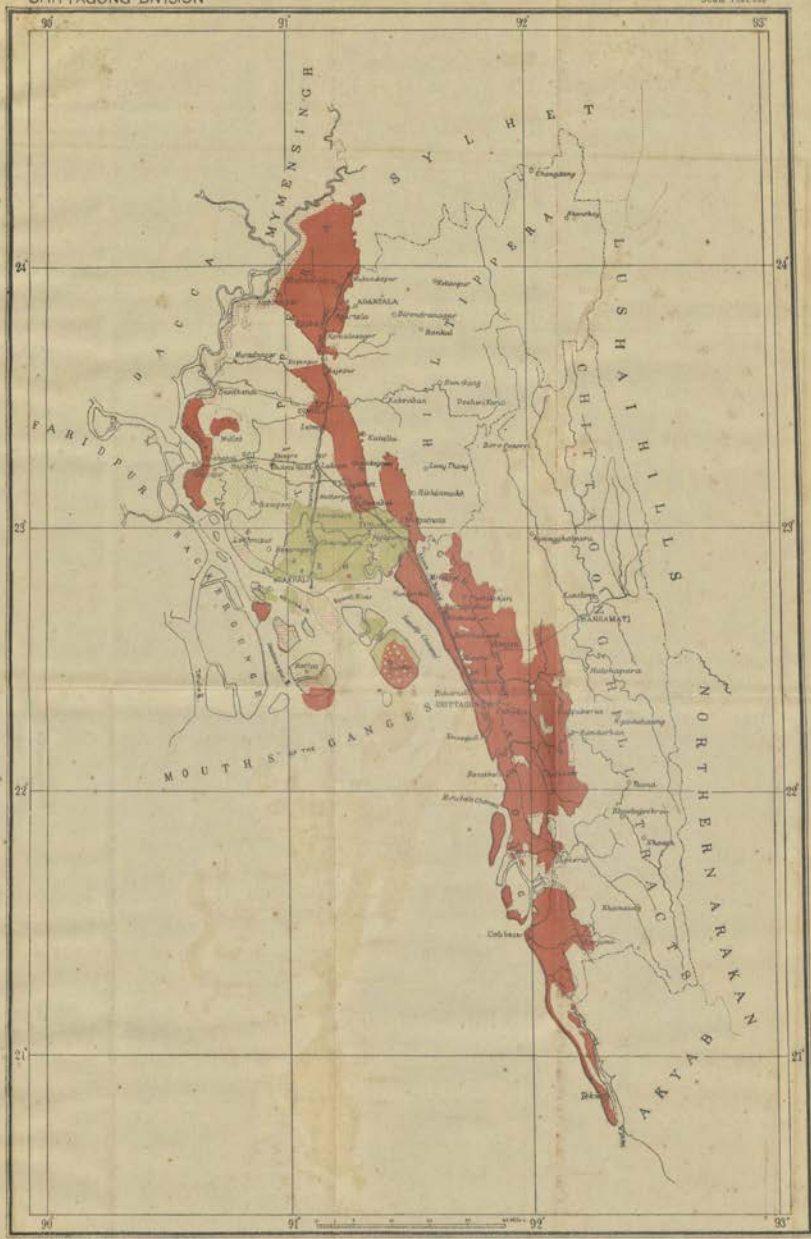
Particulars.	Number of maps.	Value.	Number of maps of which there are less than four copies in stock.
1	2	3	4
		Rs. A.	
District maps—			
Balance on 1st April 1914 ...	40	...	...
Additions during the year ...	2	...	...
Total ...	42	...	...
Issue on public service ...	...	...	...
Issue by sale	....	...	...
Total ...	...	...	...
Balance on 31st March 1915 ...	42	...	...
Thana maps—			
Balance on 1st April 1914 ...	20,883	...	...
Additions during the year ...	9,852	...	...
Total ...	30,735	...	...
Issue on public service ...	2,956	...	...
Issue by sale	566	451 12	...
Total ...	3,522	...	...
Balance on 31st March 1915 ...	27,213	...	...
Village maps—			
Balance on 1st April 1914 ...	144,222	...	...
Additions during the year ...	3,441	...	...
Total ...	147,663	...	...
Issue on public service ...	2,013	...	...
Issue by sale	7,559	3,234 12	...
Total ...	9,572	..	...
Balance on 31st March 1915 ...	138,091	...	...

B. S. Press—3-2-1916—2641J—365—C. S. M.

CHITTAGONG DIVISION

TO 30th SEPTEMBER 1915

Scale 1 inch = 8 miles



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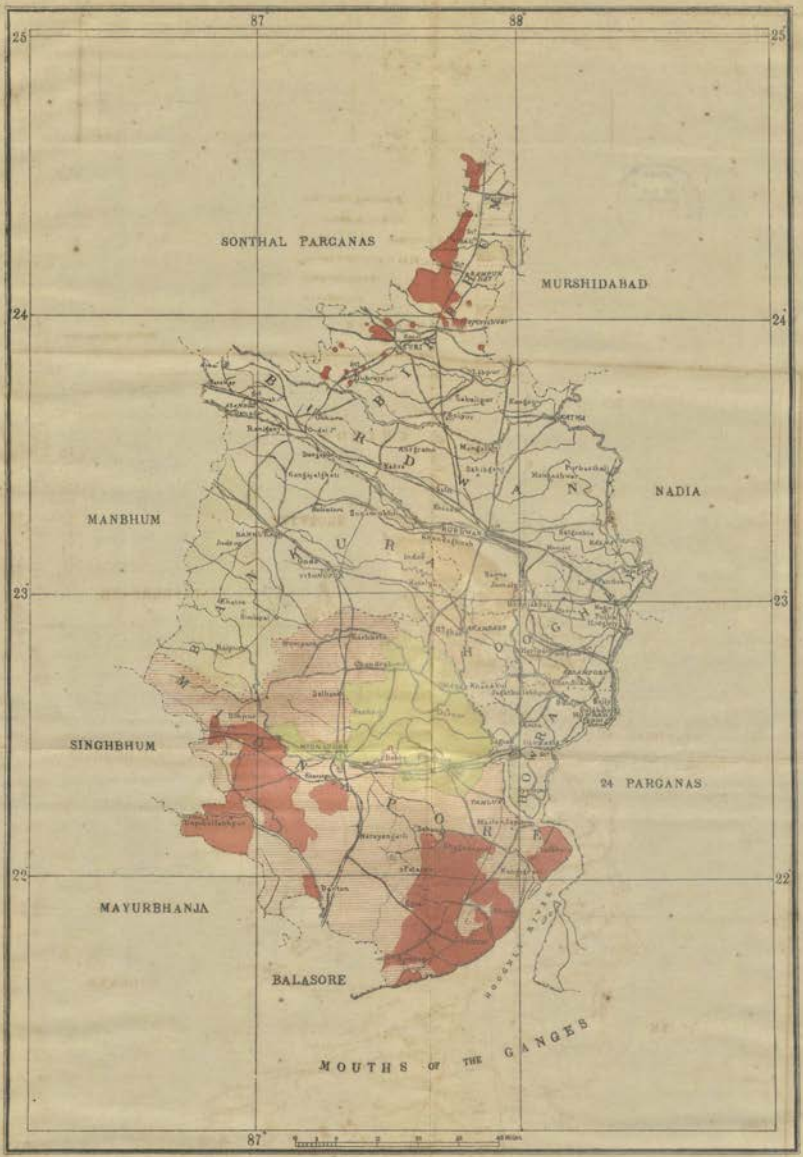
OF

PROGRESS OF MAJOR SETTLEMENT WORK

BURDWAN DIVISION

TO 30th SEPTEMBER 1915.

Scale 1 inch = 16 Miles



REFERENCES

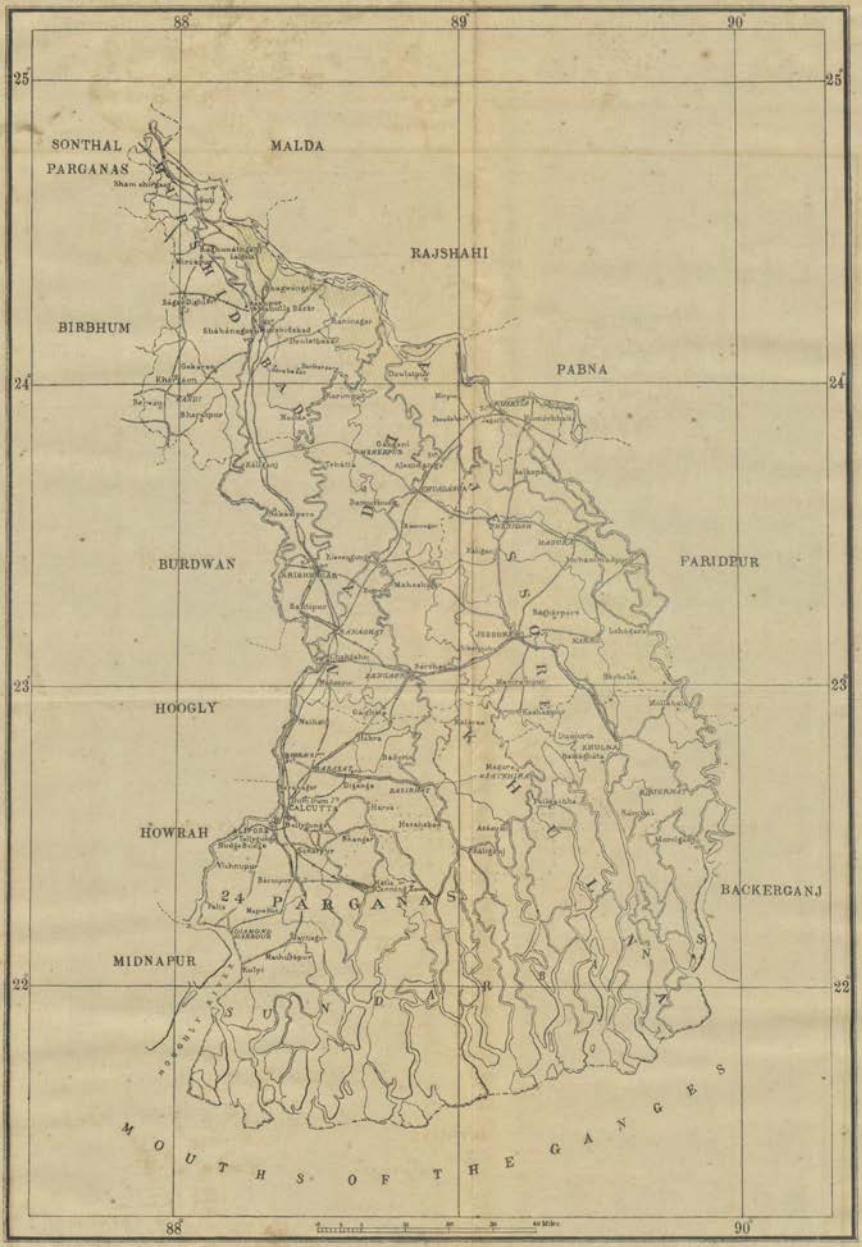
- Khanapuried
- Draft published
- Finally published in 1914-15
- Do. do. previously
- Traversed in 1914-15
- Previously Traversed

PROGRESS OF MAJOR SETTLEMENT WORK

PRESIDENCY DIVISION

to 30th SEPTEMBER 1915

Scale 1 Inch = 16 Miles



REFERENCES.

Area Traversed previously

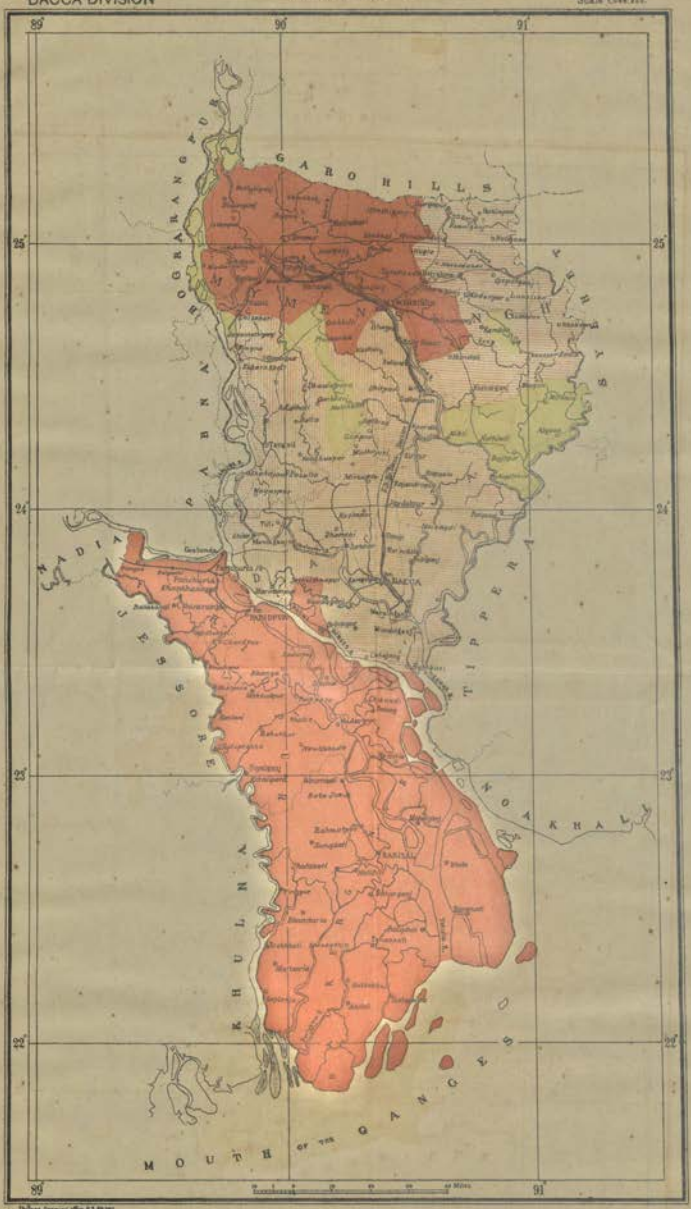
Do do 1914-15

PROGRESS OF MAJOR SETTLEMENT WORK

TO 30th SEPTEMBER 1918

DACCA DIVISION

Scale



REFERENCES

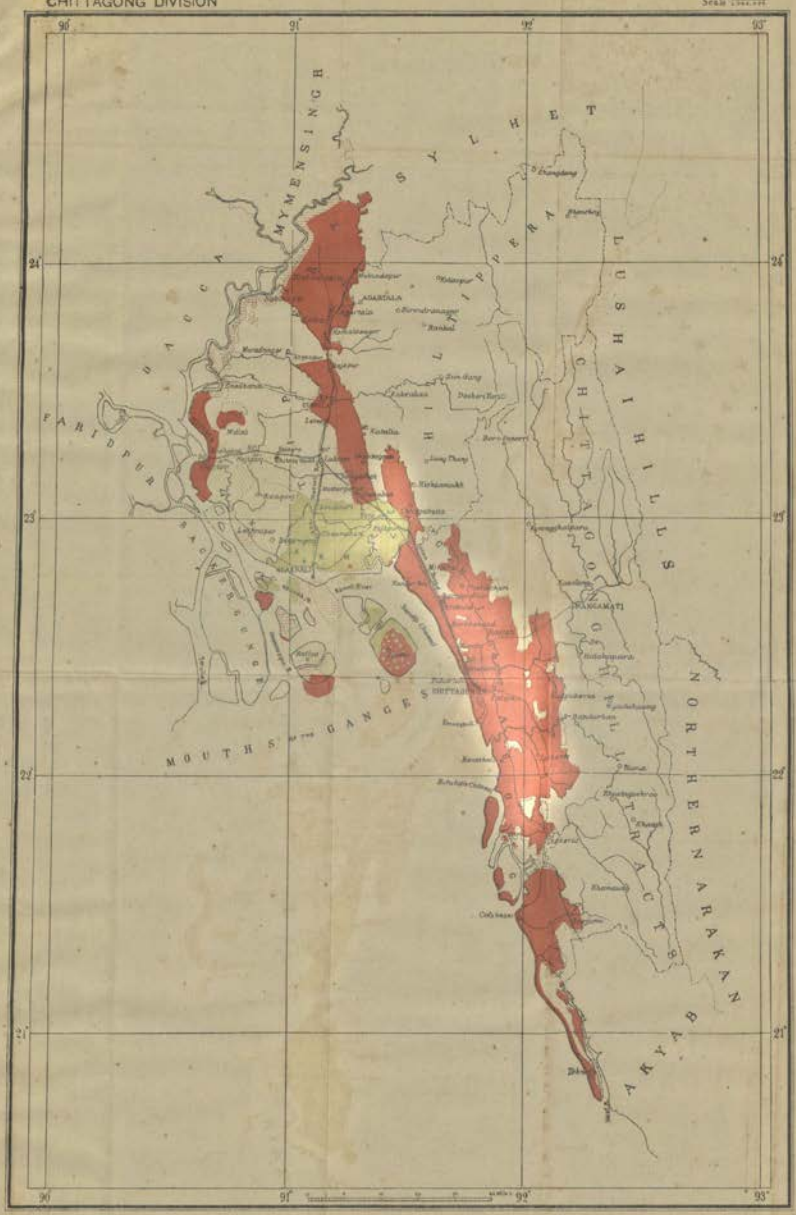
- Khanapurried
- Draft published
- Finally published in 1914-15
- Do. do. previously
- Traversed in 1913-14
- Previously Traversed

PROGRESS OF MAJOR SETTLEMENT WORK

TO 30TH SEPTEMBER 1915

CHITTAGONG DIVISION

Scale 1 inch = 8 miles



REFERENCES

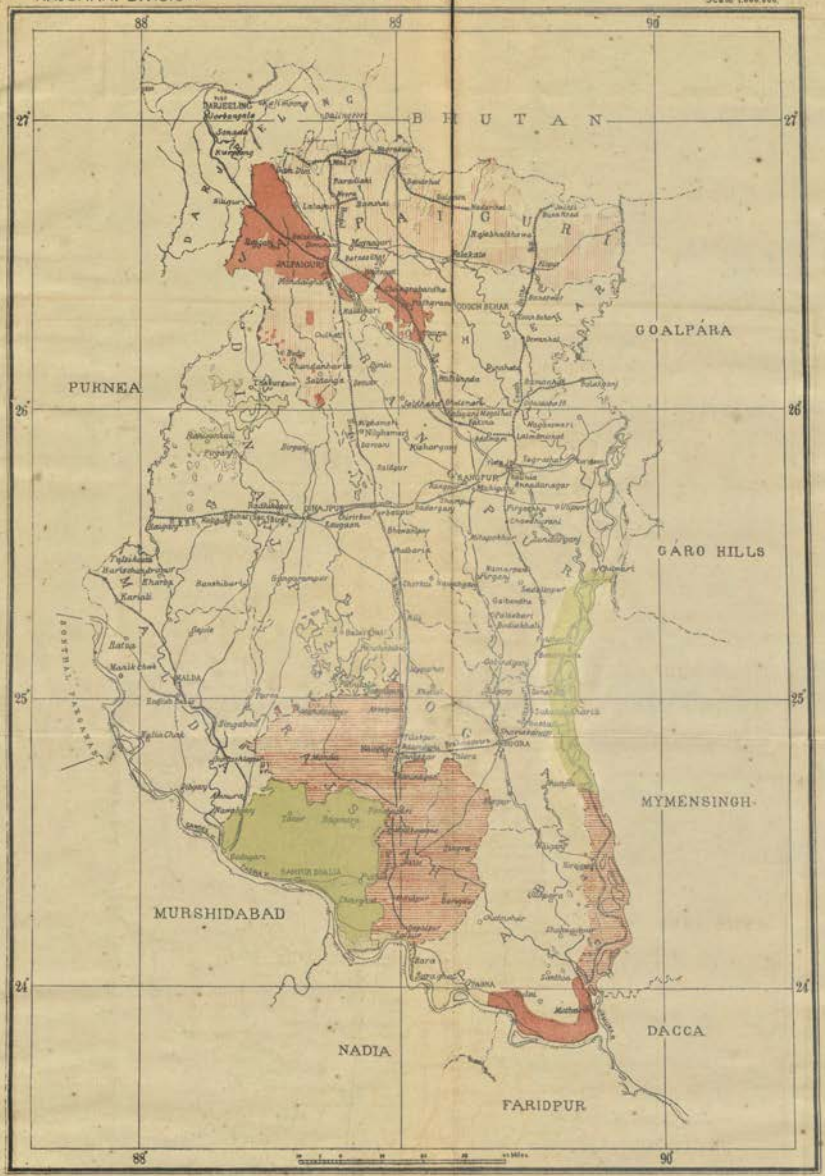
- Unsurveyed
- Draft published
- Finally published in 1914-15
- Do. do. previously
- Traversed in 1914-15
- Previously Traversed

PROGRESS OF MAJOR SETTLEMENT WORK

RAJSHAHI DIVISION

TO 30th SEPTEMBER 1915

Scale 1 inch = 8 miles



REFERENCES

- Khanapuried
- Draft published
- Finally published in 1914-15
- Do do. previously
- Traversed in 1914-15
- Previously Traversed

REVENUE DEPARTMENT.

LAND REVENUE.

CALCUTTA, THE 29TH FEBRUARY 1916.

RESOLUTION—No. 2189.

READ—

The Survey and Settlement Reports for the year ending 30th September 1915.

THE war affected adversely the progress of the operations of the Survey and Settlement Departments. With a view to economy in expenditure operations in the district of Bankura were postponed ; and the programme in all districts was appreciably curtailed. The collapse of the jute market immediately after the outbreak of the war interfered with the recovery of costs in the Eastern Bengal districts, while it was the indirect cause of a diminished demand for printed maps and khatians and of a decrease in the number of cases instituted in Settlement Courts in Eastern Bengal districts. The record-of-rights was finally published during the year in an area of 1,975 square miles against an area of 4,492 square miles in the previous year. The total area for which a record-of-rights has been completed in the Presidency is 17,027 square miles, and in 12,732 square miles it is under preparation, while an area of 34,360 square miles remains to be dealt with.

2. In 1912 the survey operations and map work of the Provinces of Bengal and Assam were placed as a tentative measure under the control of Major F. C. Hirst, I.A., as Director of Surveys of the two Provinces. The inconvenience of this arrangement, however, soon become apparent, and steps were taken during the year for the formation of separate departments for each Province. The reconstitution of the Bengal Survey Department was effected on the 4th December 1915.

3. According to arrangements previously made with the Surveyor-General, the Imperial Standard Mapping Section was placed under the Director of Surveys for the preparation of standard maps of Bengal from data supplied by recent cadastral surveys. The work started late in the year with a temporary establishment and such draftsmen as were available from the Province of Bihar and Orissa where the work is approaching completion.

4. Traverse survey was continued in the districts of Rajshahi and Midnapore, was begun in Tippera, Jessore and Bankura, and was completed in Noakhali and the diara blocks of Mymensingh. In spite of difficulties in carrying out measurements across wide sea channels in Tippera and Noakhali, and in spite of the scattered nature of the work in Midnapore, the outturn of district surveys amounted to 4,074 square miles, against 3,630 and 3,562 square miles in the two previous years. The incidence of cost-rates, although slightly higher in districts newly taken up, in diaras, and in Midnapore, did not exceed the estimated rates.

5. An area of about 500 square miles in the main Ganges Diara between Rajshahi and Faridpur was traversed for the Settlement Department. The Survey Department was also engaged in carrying out numerous jobs of a miscellaneous character, including a considerable programme in Calcutta and its suburbs for the Improvement Trust.

6. A Committee, consisting of the Principal of the Sibpur Civil Engineering College, the Director of Surveys, and the Head Master of the Dacca School of Engineering, was appointed in 1914 to enquire into the subject of survey education in Bengal. They were asked to draw up a revised syllabus for survey classes, to suggest the schools in which the classes should be held, to advise generally as to staff and other details, and to make proposals for a scheme of periodical inspection and examinations. The Committee's report was received during the year and is under the consideration of Government.

Several students from the Government Survey School at Mainamati near Comilla were provided with appointments in the Bengal Traverse Party in the cold weather of 1914-15. The Governor in Council regrets to observe that their work was not always satisfactory and trusts that the Principal

will be able to convince his students that practical work in the field is the object for which they undergo training. With the improvements in methods of teaching lately introduced, it is hoped that the school will ultimately be a reliable recruiting ground for Traverse Surveyors of the Department and will also be of use in the training of Collectorate kanungos.

7. Cadastral survey and the preparation of record-of-rights were in progress in nineteen districts. The area cadastrally surveyed in major operations was 3,602 square miles, and preliminary records were written for 3,598 square miles, against 3,262 and 3,360 square miles, respectively, of the previous year. Records were attested for 3,234 square miles and finally published for 1,866 square miles. In minor operations 55 square miles were cadastrally surveyed and the records of 69 square miles were attested and of 109 square miles finally published. A considerable amount of diara resumption and resettlement of land revenue was accomplished in the course of these operations, both major and minor, mostly in Dacca, Bakarganj, Faridpur, and Noakhali.

8. In reviewing the progress made in the several major operations the Director of Land Records has compared the actual progress and expenditure with the revised programmes and estimates, as instructed in last year's Resolution. The Governor in Council finds that, except in the case of Midnapore district, which will be the subject of careful enquiry, there is not yet reason to believe that the latest estimates will be much exceeded; but the report shows that unforeseen incidents, such as the curtailment of the programme for the sake of economy, and the delay in recovery of costs on account of the fall in the price of jute, may upset estimates prepared for normal conditions, and that the variety in the numbers of plots and interests per square mile within the same district, and in the intensity of disputes are factors which make strictly accurate estimates impossible before work has been started.

In Jalpaiguri and Faridpur the settlement proceedings will be closed on 29th February 1916. In both of these districts the state of the jute trade has caused delay in recovery of costs, which has retarded completion of the operations: in Faridpur no appreciable excess over the sanctioned estimate is expected, but in Jalpaiguri the excess is likely to be about Rs. 40,000.

In Midnapore the programmes of cadastral survey, khanapuri, and attestation have been completed, but the estimated cost-rate has been exceeded especially in attestation, where the excess is due to an unexpectedly large number of plots and interests per square mile. The savings in expenditure, as compared with the estimates, are more than counterbalanced by the arrears in *janch* (final scrutiny). The Governor in Council desires that the question of excess over the total estimate shall form the subject of full enquiry in the current year.

Apart from case work which was stopped for economy and recovery which was affected by the jute crisis the progress in Dacca was satisfactory, and the expenditure was well within the estimate. The major portion of the programme has been completed in this district.

In Mymensingh cadastral survey and khanapuri have been completed: complexity of work has delayed *bujharat* (field-to-field verification of map and record) and attestation, and has increased the cost of attestation. The savings in the estimate will be absorbed by the completion of areas, but no large divergence from the sanctioned estimates is expected.

The year's programme was nearly completed in Rajshahi, except for field *bujharat* and *janch*, which are in arrears owing to the number of plots and interests encountered. It is hoped that savings in the diara area will counterbalance the high cost of *bujharat* and prevent the total estimate from being exceeded.

In Tippera and Noakhali, where operations began during the year under review, a reduction in the estimated area due to diluvion has kept the total cost below that estimated, while the cost-rates per square mile have been slightly exceeded.

9 The report contains accounts of the relations between landlords and tenants in the districts of Rajshahi and Noakhali where settlement operations have not been long in progress. The Settlement Officer of Rajshahi tells a

story of habitual and organized oppression which has reduced the raiyats to a state of subservience. His account presents a striking contrast with that which is given of the raiyats of Noakhali, where it is reported that abwabs and enhancements of rent are rarely taken, and the raiyats are prosperous and law-abiding.

10. Settlement records continue to be used freely in all departments of Government, including the Civil Courts, a result, no doubt, partly due to the continuous accession to the general departments of the administration of officers, who have either seen service in surveys and settlements or passed through a course of training at the annual camp. The rapidly growing appreciation of settlement records can be gauged by the fact that in Bakarganj over 17,500 applications for settlement records and connected papers were received during the year.

In accordance with the orders of the Secretary of State, the proposal for the maintenance of land records has been abandoned for the present, mainly on account of the absence of a suitable local agency.

11. Major F. C. Hirst, I.A., Director of Surveys, was on privilege leave and special duty from October to April, during which period his duties were carried on successively by Captain A. H. Gwyn, I.A., and Mr. J. C. Nixon, I.C.S. Mr. M. C. McAlpin, I.C.S., was in charge of the Department of Land Records throughout the year. The two departments worked harmoniously with the usual high standard of efficiency. The thanks of His Excellency in Council are due to these officers for the successful administration of their respective departments. Government have much pleasure in acknowledging the energy, ability, and resourcefulness in organization displayed by the officers in charge of major operations. The good services of the numerous officers, whose names are mentioned in the concluding chapters of the two reports, are also noted.

ORDER.—Ordered that this Resolution be published in the *Calcutta Gazette* and that a copy of it, together with copies of the two reports, be submitted to the Government of India.

By order of the Governor in Council,

L. BIRLEY,

Offg. Secy. to the Govt. of Bengal.

No. 2190.

COPY, with copies of the two reports, forwarded to the Surveyor-General of India for information.

No. 2191.

COPY, with copy of the Survey Department's report, forwarded to the Municipal Department of this Government for information, with special reference to paragraph 19 of the report.

No. 2192.

COPY, with copies of the two reports, forwarded to the Appointment Department of this Government for information, with special reference to paragraph 11 of the Resolution.

No. 2193-93½.

COPY forwarded to the Director of Land Records and Director of Surveys, Bengal, for information.

By order of the Governor in Council,

CALCUTTA,
The 29th February 1916.

J. N. MITRA,
Under-Secy. to the Govt. of Bengal.

B. S. Press—3-3-1916—7024C—565—B. N. K.

2

ANNUAL REPORT

ON THE

SURVEY OPERATIONS IN BENGAL

(OTHER THAN CADASTRAL SURVEYS)

DURING THE YEAR

1915-16.

CALCUTTA :

THE BENGAL SECRETARIAT BOOK DEPOT.

1917.

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MR. MARTINUS NIJHOFF, The Hague, Holland.

No. 25.

FROM J. C. NIXON, ESQ., I.C.S.,

Offg. Director of Surveys, Bengal,

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,

REVENUE DEPARTMENT.

Dated Calcutta, the 2nd January 1917.

SIR,

I HAVE the honour to submit my report for the survey year ending 30th September 1916. Major F. C. Hirst, I.A., held charge till 5th December 1916, and I acted as his assistant. On that date he proceeded on furlough and made over charge of his duties to me.

2. Major Hirst was on special duty from 6th November 1914 to 30th April 1915 to report on the state of the Nadia Rivers. The report has now been published.

3. The final separation of Bengal and Assam Surveys was effected from the date of Major Hirst's departure. This entailed the removal of the Map Reproduction Office from Shillong to Calcutta making possible a consolidation of all the sections of the Bengal Survey Department in two buildings located in Park Street. As a corollary of this, Government agreed to the amalgamation of all the separate clerical sections of the department into a single control section. This has resulted in more efficient supervision and in other forms of economy. I shall report on this in due course.

4. The major traverse programme consisted of only 1,382 square miles which had the effect of making overhead charges appear high. The disorganisation consequent on the move of the reproduction office dislocated the output of cadastral maps, which caused the settlement department much inconvenience.

Programme.	Square miles.	Actually traversed.
Tipperah	... 700	747
Rajshahi Diaras ...	... 500	578
Midnapore (Retraverse) ...	... 50	36
Mymensingh (Retraverse) ...	... 21	21
		1,382

5. Further details will be found in the body of this report.

Bengal Traverse Party.

(Imperial operations.)

6. Mr. Rampezzotti, Deputy Collector, was transferred to the General Department from 6th December 1915, and Mr. A. H. Pyster took charge of the Survey School from 1st December 1915. Since that date Mr. O'Donel has had no assistant, but he has carried on his work very ably and personally and has yet found time to give me much useful help in general matters.

7. **Districts Tipperah and Noakhali.**—The field programme consisted of 747 square miles in Thanas Daudkandi, Nabinagar, Matlab Bazar, Brahmanbaria and Kasba, excluding the Palpara and Chakla Roshnabad estates and strips of diara land along the Meghna. The country is low-lying particularly in thana Brahmanbaria and is much cut up in places by narrow deep khals. All trijunctions were permanently marked with Burn's cylinders.

8. A comparative map of a large portion of the south of Noakhali was made and certain parts of Siddon's work added to it after considerable trouble.

9. **Ganges diara in connection with Rajshahi settlement.**—The programme of 568 square miles consisted of (*a*) an area of chars lying within the limits of the river itself adjoining Rajshahi, and (*b*) a riparian area in Malda omitting the actual river portion.

10. This is in continuation of an experiment of traversing a river block in two seasons, and leaving for the second season only a narrow strip of water-char area of which the cadastral should be completed in the same season as the traverse, as described in paragraph 17 of last year's report. Much duplication of traverse work resulted from this method and from a traverse point of view it cannot be said to have proved itself a success.

11. The area remaining for next season is about 140 square miles. Comparative Mapping of the Ganges Area is now in hand.

12. **District Malda.**—The traverse of Tauzi No. 60 lying partly within the diara area was done and the plots supplied to the Settlement Officer early in the season. The area was approximately 10 square miles and consisted of 29 villages.

13. **District Midnapore.**—The retraverse of 80 scattered villages covering an area of 36 square miles completed the whole of this district. Four sets of comparative maps for diara purposes were also completed.

14. **District Mymensingh.**—Twenty-one square miles of an area known as Chota Gargazali were retraversed and additional subtraverses were run into, land brought under cultivation since 1910-11.

15. A mauza, which had been inadvertently omitted in previous seasons Dangdora, in the extreme north of the district, was traversed and the plot supplied to the Settlement Officer.

Case for comparative mapping occurred :—

(1) In Jumuna river area.
(2) Mymensingh Garo-Hill boundary.
(3) Meghna river boundary.

This last case necessitated some extra traversing.

16. Besides these current matters the computations which had been getting into arrears were brought practically up to date during the year under report, and 4″ plotting for jurisdiction maps consequently has been got better in hand.

Miscellaneous Survey Work.

17. Owing to the magnitude and complexity of the survey work in and around Calcutta, and to the comparative smallness of the Bengal Traverse Party's programme, several of these pieces of work were made over to the Bengal Traverse Party to do.

The following points are noted on the more important items.

(Items from last year's report.)

18. **Howrah Town Survey (50′=1 inch).**—The work is progressing creditably and should be completed during the next year. The staff, being almost wholly temporary, has been difficult to manage, and their work has required much supervision, and in places subsequent correction. In practice, too, the Act has been found very inadequate in forcing parties to point out their boundaries and this has occasioned much unnecessary delay.

19. **Calcutta Added Area Revision.**—These sheets have been revised topographically and demarcation has been done in Wards 19 and 20. Much correspondence has taken place during the year over these maps and their maintenance, and it is probable that nothing short of a survey *de novo* will satisfy all requirements.

20. All work in connection with the surveys of *Maniktola* and part of the *Tollyganj* municipalities has been completed, and the 50′ maps have been distributed.

21. The only work which remains in respect of the survey of *South Suburban* municipality is the reproduction of the 16″ wall maps.

22. In connection with the survey of the *Cossipore-Chitpur* municipality only the printing and distribution of the 50′ sheets remain and this is in hand.

23. The maps of *Kalimpong Town* were completed and reproduced. At the request of the Deputy Commissioner of Darjeeling another complete set was made to a scale of 32″ = 1 mile.

24. **Darjeeling Municipality Survey.**—This case has been referred back to the municipality, which is at present considering a scheme which has been put before it.

25. An *Instrument Checking Standard* was erected at the headquarters station of Midnapore and the continuation of the scheme has been postponed for the present under Government orders.

26. **Jalpaiguri Tea Gardens.**—The cases of about eight of the gardens, the Managers of which have filed objections, are still being examined. The recovery of costs has been a difficult matter and there are still several outstanding cases.

27. **The Jalpaiguri-Bhutan Boundary Case.**—The maps are now almost complete, but the report has been held up till the return of Major Hirst, who has special knowledge of this case.

28. The continuation of the work of compiling of *Triangulation Charts* and data has been practically postponed for the present.

29. The experimental survey of a section of seven miles of the *Eastern Bengal Railway* was completed and a report submitted.

(*Other items not mentioned in last year's report.*)

30. **Darjeeling Purnea Boundary Case.**—This is an old case which will be finally completed during the next field season. The difficulty has been to arrange to get the pillars built, but this has been satisfactorily settled with the Executive Engineer, Darjeeling district. The case is being reported to Government through the Commissioner of Rajshahi Division.

31. Eighteen villages were traversed in a *partition case* in the district of *Khulna* and the plots supplied to the Collector.

32. A comparative map of village *Bhil Dacoitea* and its environs was made after a certain amount of field work for a case in the Court of the Subordinate Judge of Khulna.

33. In connection with a Commissioner appointed by the Collector of Khulna the demarcation of a boundary line in the *Sundarbans area* was undertaken and completed.

34. The traverse of *mauza Hijol*, district Murshidabad, was undertaken at the request of the Director of Land Records.

35. Two estates in the 24-Parganas-Sundarbans—*Shikarpur 2nd portion* and *Munsadip 2nd portion*—were traversed and the plots sent to the Collector.

36. The demarcation of a small portion of the Cooch Behar-Rangpur boundary along the *Khutamara River* was demarcated at the orders of Government and the case reported on separately.

37. The execution of a decree in a case in the Court of the *District Judge of Rajshahi* was carried out to the express satisfaction of the parties.

38. A map was prepared in another case before the *District Judge of Rajshahi*, but the case was eventually dropped as far as this department was concerned. The costs incurred were deposited.

39. Various cases of *relaying boundaries in Calcutta* have been undertaken during the year upon the parties depositing the necessary cost.

40. The preparation of a *comparative picture of the River Jumuna* has been started, but awaits the material from certain comparative revenue maps still in hand.

41. The *maintenance* of the maps of Calcutta Added Area, and of the Suburban municipalities, has made little progress. The difficulties in connection with this have been reported to Government from time to time.

Drawing Office.

42. **Reproduction Section.**—The move from Shillong was started in October 1915. The ill-consideration of the contractors who were engaged in equipping this office in Calcutta, numerous breakages on the way down, the difficulty in obtaining suitable advice about electrical plant, the delay in getting a new machine litho-press from England, the scarcity of the necessary chemicals, stores and zinc in India, all contributed to a chaotic condition of things out of which we emerged finally only in September of this year. The output of 875,927, has consequently been much below what was required by the Settlement Department, but fair considering the circumstances.

43. The outlook, however, is exceedingly good for it has already been shown that the plant now installed can turn out one and-a-quarter lakhs of maps a month at a cost of about fourteen maps a rupee, and this should now continue to be the output.

44. Messrs. C. Graham Lee and L. E. Walsh at various times acted as Assistants to the Officer-in-charge but at present there is no Assistant. This makes the working of that office precarious as it is not easy to find a man conversant with the Vandyke process.

45. **Record Section.**—All the Bengal records have now been taken from Shillong but Revenue Survey and other miscellaneous records are still being received from the Surveyor General's office. During the year the rack accommodation has been increased but it is still very insufficient. I have endeavoured to take up certain of the records with a view to a correct classification, indexing and racking, as there is considerable delay in finding a particular record. I have made but little progress in this direction as it requires more detailed personal attention than I could spare, but a start has been made.

46. **Drawing Section (old Thana Mapping Section).**—Besides much miscellaneous work, often of a very large order, this section has been engaged principally on the revision of Chandra's 1″ thana maps and on the drawing of the $\frac{1}{4}$″ standardised district maps. Seven thana maps of police-stations done under recent Government orders have been completed and await printing. I am now engaged in rewriting the technical rules of 4″ mapping which will contain notes of all the different thana maps which exist, and with which this section is largely concerned.

47. **Map Issue and Copying Section.**—One thousand and sixty-one applications were dealt with during the year and 458 copies of printed maps sold to the public. The public experience two difficulties with regard to the use of this Section :—

(1) They can only find out whether what they want exists with difficulty in the present unsystematised arrangement of the record-room.

(2) They would find it exceedingly more convenient to pay for copies of maps in cash.

The copying rates were revised during the year.

Bengal Land Surveying School.

48. The school was put in the charge of Mr. A. H. Pyster, Deputy Collector.

49. Three district kanungos were given a four months' training and profited by it. The following table shows the number of students and the results of the examination :—

	Total number.		Passed Examination.	
	Hindu.	Muhammadan.	Hindu.	Muhammadan.
1st year	23	4	17	...
2nd year	9	1	6	1

50. The Officer-in-charge, Bengal Traverse Party, who conducted the examination reported very favourably on the general knowledge and intelligence of the students.

51. The school was visited on the 12th August 1916, by the Hon'ble Mr. N. D. Beatson Bell, C.S.I., C.I.E., I.C.S., who reported that the school had so far justified its existence as to be put on a permanent basis. Government has accordingly made arrangements for the permanent acquiring of the present site.

52. A theft was committed on the night of 2nd May 1916, as a result of which a sum of Rs. 1,164-11-6 was stolen of which no part was recovered.

53. Government has recently ordered that candidates for kanungoships shall receive a scholarship training at the school from the beginning of next session.

54. A small drawing section has been started at the school partly so that I may make use of the Principal's services in supervising it and partly that the students may have an opportunity of studying its work.

Imperial Standard Mapping Section.

55. Fourteen standard sheets, viz., 73 J—15, 16 ; 73 N—1, 2 ; 79 F—13, 14 ; 79 J—2, 3, 7, 8, 10, 11, 12, 16 of districts Midnapore and Bakarganj covering an area of 3,047·4 square miles have been sent for publication while two other sheets, viz., 73 O—14 and 79 J—6 of the same two districts are practically complete.

56. Twenty-five other sheets or parts of sheets of districts Midnapore, Bakarganj, Faridpur, Noakhali, Bankura and Dacca are in hand.

57. The method of using 4″ material has now been decided upon and approved by the Superintendent, Map Publication.

58. Mr. E. Hardinge, who was a very good and conscientious officer, has recently been transferred to Shillong and Mr. Simpson has taken over charge.

59. Colonel C. H. D. Ryder, R.E., has made two inspections of the section, and given me very valuable hints.

Tour and Services of Officers.

60. Major Hirst spent 18 days on tour and 104 days including a stay of 21 days at Shillong. With a small programme the ordinary requirements of touring were reduced, and apart from this I found that I needed to remain at headquarters more perhaps than a more experienced officer would have done.

61. Mr. C. A. O'Donel, the Officer-in-charge, Bengal Traverse Party, in technical matters and Mr. Damodar Rao, Personal Assistant in routine and administrative matters have given me immense help, without which I should frequently have been at a loss.

62. Mr. O. E. C. Judd, the Officer-in-charge, Miscellaneous Traverse and Survey Section, has done well in bringing the Calcutta Surveys within sight of completion.

63. Mr. P. F. Delaney deserves more credit than I have given him as he went along in the equipping of the Reproduction Office. He has worked against great difficulties and has produced at length an excellently ordered Reproduction Section.

64. Rai Sahib Kundan Lal retired after 32 years of active service on the 30th June 1916. He has done splendid work during that time in the surveys of this part of India.

I have the honour to be,

SIR,

Your most obedient servant,

J. C. NIXON,

Offg. Director of Surveys, Bengal.

APPENDIX I—PART A.

Statement showing particulars of each Survey Operation undertaken by the Bengal Traverse Party during the year ending the 30th September 1916.

DESCRIPTION OF WORK.	Geographical limit of work.	Origin used.	Number of villages.	Linear miles of chaining	Number of new theodolite stations.	Number of Azimuths observed.	Number of Azimuths used.	Number of sub-traverses.	Number of village circuits.	Number of sub-circuits.	Number of pardas.	Number of main circuits.	MARKS USED (NUMBER).							AREA OF EACH THANA IN SQUARE MILES.			
													Old stones or pillars.	Trijunction marks.	Galvanized cylinders.	Stones.	Iron pegs.	Pegs.	Total number of stations at which theodolite was set up.	Thana Matlab Bazar.	Thana Daud Kandi.	Thana Nabinagar.	Thana Brahmanbaria.
1	2	3	4	5	6	7	8	9	10	11	11a	12	13	14	15	16	16a	16b	17	18	19	20	21
District Tippera Upland Traverse.	Lat. 23° 15′ 20″ to 24° 15′ 00″. Long. 90° 36′ 40″ to 91° 19′ 00″.	Lat. 23° 30′ 00″ Long. 91° 00′ 00″	1,064	4,047	18,609	143	137	1,399	1,047	35	72	5	625	1,931	1,512	...	6	14,732	23,501	104	169	129	303
Main Ganges Diara Traverse (districts Rajshahi, Nadia, Pabna, Murshidabad and Malda Diara).	Lat. 23° 52′ 30″ to 25° 25′ 00″. Long. 87° 55′ 00″ to 89° 27′ 30″.	Lat. 24° 30′ 00″ Long. 88° 30′ 00″	526	2,193	10,046	66	62	618	523	14	7	2	...	1,150	796	...	...	8,180	12,320	District Rajshahi 69	District Nadia 126	District Pabna 42	District Murshidabad. 98
Main Ganges Diara Traverse (Tauzi No. 60).	Lat. 25° 03′ 50″ to 25° 05′ 45″. Long. 87° 56′ 05″ to 88° 01′ 50″.		29	65	343	4	3	16	29	1	2	...	...	59	...	...	...	284	439	Thana Rajna, district Malda 10	...	...	...
District Midnapore (Scattered Village Retraverse).	Lat. 21° 37′ 30″ to 22° 47′ 30″. Long. 87° 15′ 00″ to 88° 12′ 30″.	Lat. 22° 30′ 00″ Long. 87° 30′ 00″	80	215	1,327	5	3	54	80	...	...	...	...	251	2	...	...	1,074	1,595	Thana Sutahata 5	Thana Nandigram 1	Thana Khajri 5	Thana Bhagwanpur 4
District Mymensingh (Ohhora Gargajali Forest Block Relaying).	Lat. 24° 26′ 40″ to 24° 33′ 00″. Long. 90° 00′ 15″ to 90° 05′ 00″.	Lat. 24° 30′ 00″ Long. 90° 30′ 00″	1	89	946	2	1	36	1	...	...	...	25	...	26	...	...	895	1,020	...	...	...	...
District Mymensingh Traverse (Mauza Dongdhura).	Lat. 25° 24′ 30″ to 25° 25′ 10″. Long. 89° 47′ 14″ to 89° 48′ 30″.		1	14	47	...	...	5	1	...	...	..	1	...	...	...	...	46	59	...	...	Thana Dewanganj 3	...
District Mymensingh Traverse (Shibpur Char dispute).	.....	.....	...	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
District Khulna Traverse (Partition case).	Lat. 22° 35′ 00″ to 22° 40′ 00″. Long. 89° 02′ 30″ to 89° 15′ 00″.	Lat. 22° 30′ 00″ Long. 89° 30′ 00″	18	158	809	13	13	41	18	...	4	...	...	63	306	...	...	440	927	Thana Satkhira 6	Thana Kaliganj 2	Thana Asasuni 14	Thana Magura 7
District Khulna Traverse (dispute between Bil Dakatia and Ranpur).	.....	.....	...	47	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
District Khulna (Demarcation between Lot Nos. 5 and 6).	.....	.....	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
District Murshidabad Traverse (Mouza Hijal, etc).	Lat. 23° 42′ 30″ to 24° 02′ 30″. Long. 88° 07′ 30″ to 88° 17′ 30″.	Lat. 24° 00′ 00″ Long. 88° 30′ 00″	4	80	368	7	7	22	4	...	...	...	...	16	137	...	...	215	420	Thana Khandi 7	Thana Bharatpur 2	Thana Beldanga 2	...
District 24-Parganas Traverse (two Sundarbans' Estate).	Lat. 21° 41′ 00″ to 21° 47′ 00″. Long. 88° 05′ 00″ to 88° 10′ 30″.	Lat. 22° 30′ 00″ Long. 88° 30′ 00″	2	74	290	6	6	11	2	...	...	...	...	...	136	...	...	154	316	Sikarpur Estate 2nd portion 1	Mansadwip Estate 2nd portion 4	...	...
District Jalpaiguri (Khuntamara Demarcation).	.....	.....	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Statement showing particulars of each Survey Operation undertaken by the Bengal Traverse Party during the year ending the 30th September 1916.

DESCRIPTION OF WORK.	AREA OF EACH THANA IN SQUARE MILES.				Total area dealt with in square miles.	Area for cadastral same season in square miles.	Area for traverse next season in square miles.	Number of 16" sheets.	Number of 64" sheets.	Number of G. T. connections.	Average error in feet per mile.	Demarcation by inhabitants (good or bad).	Magnetic declination.	Traverse data copied for Settlement Officer (date).	Maps used to guide Surveyor (dates only).	Health of establishment.	Work started on.	Work completed on.	REMARKS.
	Thana Kasba.																		
	22	23	23 (*a*)	23 (*b*)	24	25	26	27	27*a*	28	29.	30	31	32	33	34	35	36	37
District Tippera Upland Traverse.	42	...	...	...	747	...	750	...	...	2	7·9	Nil	0°25′0″ E.	30-12-1916	R. S. maps 1861-64.	Good ...	15-11-1915	30-4-1916	Longitudinal correction has been applied.
Main Ganges Diara Traverse (districts Rajshahi, Nadia, Pabna, Murshidabad and Maida Diara).	District Maida 233	...	...	...	568	265	140	...	...	1†	13·8	Nil	0°40′0″ E.	30-12-1916	R. S. maps 1846-69.	Fair ...	1-11-1915	31-5-1916	Ditto.
Main Ganges Diara, Traverse (Tauzi No. 60.)	...	...	...	...	10	10	...	34	...	...	...	Nil	0°40′0″ E.	30-12-1916	Ditto ...	Do. ...	1-11-1915	26-1-1916	Ditto.
District Midnapore (Scattered Village Retraverse)	Thana Contai 14	Thana Ramnagar 5¾	Thana Egra ‡	Thana Naraingarh ½	36	36	...	91	...	...	...	Nil	0°10′0″ E.	Not yet ...	4″ R. S. maps 1872-74.	Do. ...	5-11-1915	31-3-1916	Longitudinal correction has been not applied.
District Mymensingh (Chhotra Gargajali Forest Block Relaying).	...	...	21	...	21	21	...	23	...	...	...	Nil	0°40′0″ E.	30-12-1916	4″ R. S. maps 1862-57.	Do. ...	1-11-1915	10-1-1916	Longitudinal correction has been applied.
District Mymensingh Traverse (Mauza Dougdhura).	...	...	...	...	3	3	...	6	...	...	...	Nil	0°40′0″ E.	30-12-1916	Ditto ...	Do. ...	5-3-1916	20-3-1916	Ditto.
District Mymensingh Traverse (Shibpur Char dispute).	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
District Khulna Traverse (Partition case).	...	...	...	...	29	29	...	44	...	...	...	Nil	0°25′0″ E.	2-8-1916	R. S. maps 1856-57.	Fair ...	1-2-1916	15-4-1916	Longitudinal correction has been applied.
District Khulna Traverse (dispute between Bil Dakatia and Ranpur).	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
District Khulna (demarcation between Lot Nos. 5 and 6).	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
District Murshidabad Traverse (Mauza Hijal, etc.).	...	...	...	...	11	11	...	17	...	...	...	Nil	0°25′0″ E.	2-8-1916	R. S. maps 1852-54.	Good ...	1-2-1916	5-4-1916	Longitudinal correction has been applied.
District 24-Parganas Traverse (two Sundarban's estate).	...	...	...	...	5	5	...	9	...	...	...	Nil	0°25′0″ E.	20-9-1916	1″ Standard map.	Do. ...	25-3-1915	10-5-1916	Ditto.
District Jalpaiguri (Khuntamara Demarcation).	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* Barjatua XLI and Maniramnath Temple (in Eastern Frontier series).

† Dilalpur XXVI (in Calcutta Meridional series).

APPENDIX I—PART B

Statement of outturn and cost rates for the year ending 30th September 1916.

District and Tract.	Description of works.	Estimated area in square miles to be dealt with.	Year of inception of operation.	Area surveyed in square miles. During the year under report.	Area surveyed in square miles. Total including previous years.	Cost rate per square miles. During the year under report.	Cost rate per square miles. From commencement to end of the year under report.	Balance of area in square miles remain for Survey.	Estimated cost completing area in column 9.	Estimated final cost rate per square mile.
1	2	3	4	5	6	7	8	9	10	11
				District Operations.					Rs.	Rs.
Noakhali	Traverse ...	3,201	1913	...	1,437(c)	71·4	57	...	47,025	62·7
Tippera	Ditto ...		1914	747	1,116			750(a)		
Main Ganges Diara (districts Rajshahi, Nadia, Pabna, Murshidabad and Malda diara).	Ditto ...	2,617	1910	568	3,558*	69·1	61	140	7,7 0	55
Midnapore	Retraverse ...	4,133	1910	36	4,465†	134·3	36	...	...	55
Mymensingh, Chhota Gargajali Forest Block Relaying.	Traverse ...	6,332	1907	21	6,810‡	85·4	43	....	...	45
Mymensingh (Mauza Dongdhura.)	Ditto ...			3		...	...	...	...	...
Mymensingh (Shibpur Chur dispute).	Ditto ...	...	...	...	...	...	...	...	...	...
Total ...	.....	...	...	...	...	...	...	...	...	...
				Minor Operations.						
Malda (Tauzi No. 60) ...	Traverse ...	...	1915	10	10	...	...	...	...	...
Khulna (partition case) ...	Ditto ...	...	1916	29	29	...	...	...	...	...
Khulna dispute between Bil Dakatia and Rangpur.	Ditto ...	...	...	...	...	...	...	...	...	...
Khulna (demarcation between lot Nos. 5 and 6.)	Demarcation	...	...	...	...	...	...	...	...	...
Mursidabad (Mauza Hijal, etc.)	Traverse ...	...	1916	11	11	...	...	...	...	...
24-Parganas (two Sundarban's estates).	Ditto ...	...	1916	5	5	...	...	...	...	...
Jalpaiguri (Khuntamara demarcation).	Demarcation...	...	...	...	...	...	...	...	...	...
Total ...	.....	...	...	...	...	...	...	...	...	...
Grand Total ...	.....	...	...	...	...	...	...	...	...	...

(a) By Traverse area has been found in excess than the estimated area for the Thanas which are Traverse up to this time.
* Including upland area.
† Including area retraversed.
‡ Including upland area, Mymensingh, Tippera Diara, Chota Gargajali Forest and Mauza Dongdhura areas.
(c) Including large river blocks.

APPENDIX II.

Statement of sums expended during the year ending 30th September 1916.

District and Tract.	Description of work.	Expenditure incurred during the year under report.				Total expenditure from inception to end of the year under report.			
		Direct Charges, including share of general section, if any.	Share of control.	All indirect charges other than share of control.	Total.	Direct Charges, including share of general section, if any.	Share of control.	All indirect charges other than share of control.	Total.
1	2	3	4	5	6	7	8	9	10
District Operations.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Midnapore	Traverse	3,703	703	432	4,838	1,59,621	Not available.		
Ditto Comparative Diara mapping—Rasulpur river.	Mapping	370	71	37	478	2,715	402	171	3,288
Ditto Comparative Diara mapping—Rupnarain river.	Ditto	458	87	28	573				
Ditto Comparative Diara mapping—Haldi river.	Ditto	261	50	5	316				
Ditto Comparative Diara map of a strip of area along thana Nandigram	Ditto	60	12	7	79	60	12	7	79
Ditto Reducing of original co-ordinates (arrear computation).	Computation	2,022	384	231	2,637	Not available.			
Ditto 4" plots for Jurisdiction mapping ...	Plotting	958	182	55	1,195	1,780	304	61	2,145
Ditto Reproduction of 16" Cadastral sheets	Reproduction	10,991	2,090	4,190	17,271	Not available.			
Ditto ditto of 4" maps	Ditto	198	37	65	300	Ditto.			
Ditto ditto of 1" map of thana Gopiballavpur.	Ditto	16	3	6	25	16	3	6	25
Ditto ditto of 16" map for attestation.	Ditto	254	49	98	401	Not available.			
Noakhali and Tippera	Traverse	40,902	7,771	4,686	53,359	1,19,662	19,439	8,711	1,47,812
Ditto Diara comparative mapping	Mapping	784	155	76	1,015	978	178	77	1,233
Ditto Reducing of original co-ordinates (arrear computation).	Computation	33	8	4	45	Not available.			
Ditto Reproduction of 1" and ½" maps ...	Reproduction	4	1	2	7	4	1	2	7
Jessore	Traverse	2,646	502	309	3,462	41,699	5,077	2,439	49,215
Do. Reproduction of Mujmillies	Reproduction	12	2	5	19	12	2	5	19
Rajshahi — Diara	Traverse	30,093	5,713	3,462	39,268	53,378	8,400	4,740	66,518
Ditto 4" plots for jurisdiction mapping ...	Plotting	349	67	12	428	2,026	Not available.		
Ditto Diara comparative maps	Mapping	50	10	2	62	50	10	2	62
Ditto Reducing original co-ordinates (arrear computation).	Computation	259	40	28	327	Not available.			
Ditto Reproduction of 16" Cadastral sheets ...	Reproduction	3,812	724	1,441	5,977	3,812	724	1,441	5,977
Mymensingh	Traverse	1,576	300	184	2,060	2,94,752	Not available.		
Ditto 4" plots for jurisdiction mapping ...	Plotting	820	156	53	1,029	3,778	Ditto.		
Ditto Reducing original co-ordinates (arrear computation).	Computation	1,953	370	217	2,540	Not available.			
Ditto Diara comparative mapping—Jamuna river north block.	Mapping	300	57	34	391	Ditto.			
Ditto Diara comparative mapping—Jamuna river, south block.	Ditto	130	25	14	169	Ditto.			
Ditto Diara comparative mapping of Mymensingh, Tipperah and Meghna Diara.	Ditto	98	18	2	118	Ditto.			
Ditto Diara comparative mapping of Garo Hills.	Ditto	228	43	10	281	Ditto.			
Ditto Reproduction of 16" Cadastral sheets	Reproduction	4,227*	803	1,962	6,992	Ditto.			
Dacca—Reproduction of 1" Thana Map	Ditto	98	19	35	152	Ditto.			
Do.— Reproduction of 4" Maps of thanas Srinagar and Naraiuganj.	Ditto	47	9	18	74	47	9	18	74
Dacca—Reproduction of maps of Dacca Municipality.	Ditto	48	9	18	75	48	9	18	75
Ditto— Ditto 16" Cadastral sheets ...	Ditto	19,877†	3,776	8,192	31,845	Not available.			
Ditto— Ditto ½" map	Ditto	2	...	...	2	2	...	...	2
Ditto— Ditto 4" Jurisdiction plots ...	Plotting	56	11	2	69	1,463	243	3	1,709
Ditto— Ditto Comparative Maps of Dacca, Tipperah Diara and Meghna River.	Mapping	104	20	6	130	3,519	568	161	4,248
	Carried over ...	1,27,799	24,282	26,928	1,78,009	...	...	...	...

* Excludes Rs. 947 on account of proportional credit of Rs. 5,000 paid by Assam for machine.
† Do. ,, 1,360 ditto ditto ditto.

APPENDIX II—*contd.*

Statement of sums expended during the year ending 30th September 1916—contd.

District and Tract.	Description of work.	Expenditure incurred during the year under report.				Total expenditure from inception to end of the year under report.			
		Direct charges, including share of general section, if any.	Share of control.	All indirect charges other than share of control.	Total.	Direct charges, including share of general section, if any.	Share of control.	All indirect charges other than share of control.	Total.
1	2	3	4	5	6	7	8	9	10
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
	Brought forward ...	1,27,799	24,282	26,928	1,78,009	...	...	...	...
District Operations—contd.									
Faridpur—Reproduction of 1" maps	Reproduction	—1,991*	...	63	—1,928	Not available.			
Ditto— Ditto of Final Report maps ...	Ditto	51	10	19	80	51	10	19	80
Ditto— Ditto of ½" maps of 13 Thanas	Ditto	17	3	6	26	17	3	6	26
Jalpaiguri—Reproduction of 4" Maps	Ditto	—494†	...	19	—475	Not available.			
Ditto— Ditto of ½" Maps	Ditto	2	...	1	3	2	...	1	3
Reproduction of Conventional signs for the use of Settlement Officers.	Ditto	300	57	112	469	300	57	112	469
Capital cost incurred for the shift of the Drawing Office from Shillong to Calcutta.	.....	13,941	...	...	13,941	13,941	...	...	13,941
	Total ...	1,39,625	24,352	26,148	1,90,125	..	...	...	...
Minor Operations.									
Faridpur—Congregated 4" maps of Char Daulatdia for Collector of Faridpur.	Mapping	28	5	1	34	28	5	1	34
Faridpur—Comparative maps of Mokimpur Diara, districts Khulna, Jessore and Faridpur.	Ditto	322	62	2	386	322	62	2	386
24-Parganas—Traverse Survey of two Sunderban Government Estates, Mansadwip 2nd portion and Sikarpur 2nd portion.	Traverse	317	60	5	382	317	60	5	382
24-Parganas—Preparation of Revenue Maps of Panchanagram Government Estate within the Cossipore-Chitpur Municipality.	Mapping	791	152	22	965	791	152	22	965
24-Parganas—Revenue Maps of part of Government Estate Panchanagram within the Tollyganj Municipality.	Ditto	274	51	2	327	361	63	2	416
24-Parganas—Scheme No. V, 30 feet Survey for Calcutta Improvement Trust.	Survey	412	79	117	608	5,893	734	239	6,866
24-Parganas—Revision Survey of Calcutta added area for Calcutta Improvement Trust.	Ditto	20,750	3,912	464	25,126	48,500	7,655	1,580	57,735
24-Parganas—Fair mapping of South Suburban and Cossipore-Chitpur Municipality for Calcutta Improvement Trust.	Mapping	2,948	555	137	3,640	9,455	1,325	231	11,011
24-Parganas—Colouring of maps of Tollyganj and South Suburban Municipality for Calcutta Improvement Trust.	Ditto	3,039	570	71	3,680	3,461	620	79	4,160
24-Parganas—Calcutta Maintenance Scheme ...	Survey	1,521	289	94	1,904	1,521	289	94	1,904
Jalpaiguri—Khuntamara-Cooch Behar dispute case, i.e., permanent demarcation of a portion of boundary between Cooch Behar and Sebram.	Ditto	350	66	41	457	350	66	41	457
Jalpaiguri—Tea Gardens Survey	Mapping	348	62	17	427	41,776	8,323	2,245	52,344
Khulna—Traverse Survey of Boyarsingha Government Estate No. 877	Traverse	100	19	2	121	100	19	2	121
Khulna—Traverse Survey of disputed line of Rampur Dakatia case.	Survey	647	122	74	843	647	122	74	843
Khulna—Traverse Survey of 18 villages in connection with partition case.	Traverse	1,088	203	128	1,419	1,088	203	128	1,419
Khulna—Dispute case—Relaying of boundary between lot Nos. 5 and 6.	Survey	487	90	54	631	487	90	54	631
Rajshahi—Police training	Training	8	...	...	8	532	...	2	534
Ditto— Relaying of certain decretal plots in mauza Wazirpore in connection with Babupur-Wazirpore dispute case.	Survey	636	119	26	781	2,235	991	83	3,309
Murshidabad—Traverse Survey of mauza Hijal, Thana Kandi and Beldanga.	Traverse	340	65	39	444	340	65	39	444
Maldah—Mr. Hennessy's work	Ditto	828	157	98	1,083	828	157	98	1,083
Do.— Demarcation of boundaries of villages Shampore and Paharpur for Chanchal Raj.	Survey	50	9	1	60	50	9	1	60
Darjeeling—Traverse and detail survey of Kalimpong Hill Ridge.	Traverse and Detail ...	1,317	250	48	1,615	12,065	1,454	125	13,634
Darjeeling—Purnea boundary	Survey	93	19	1	113	93	19	1	113
Ditto— Revision Survey of a portion of Darjeeling Municipality on old maps and data.	Traverse and detail ...	556	104	25	685	3,322	435	111	3,868
Hooghly—Comparative map of a portion of Bhagirathi River (Majer Char and other villages) in connection with a civil suit between Government and Prabash Chandra Dey.	Mapping	84	14	1	99	84	14	1	99
	Carried over ...	37,334	7,034	2,470	45,838	...	...	...	...

* Excludes Rs. 2,139 on account of proportional credit of Rs. 6,000 paid by Assam for machine.
† Do. „ 544 ditto ditto ditto.

APPENDIX II—*contd.*

Statement of sums expended during the year ending 30th September 1916—contd.

District and Tract.	Description of work.	Expenditure incurred during the year under report.				Total expenditure from inception to end of the year under report.			
		Direct charges including share of general section, if any.	Share of control.	All indirect charges other than share of control.	Total.	Direct charges including share of general section, if any.	Share of control.	All indirect charges other than share of control.	Total.
1	2	3	4	5	6	7	8	9	10
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	R .
Brought forward ...	.....	37,334	7,034	1,470	45,838	...	...	...	...
Minor Operations—contd.									
Birbhum—Preparation of a comparative map of villages Lalbazar and Bangalbachak in connection with title suits Nos. 667 and 668 in Munsiff's Court, Dubrajpur.	Mapping	120	24	5	149	120	24	5	149
Howrah—Traverse and Detail Survey of Howrah Town.	Traverse and detail ...	54,964	10,403	1,880	67,247	1,12,995	18,134	4,978	1,36,107
Bakarganj—Preparation of map of Ramna Bamna alia-Phooljhari.	Mapping	14	3	...	17	14	3	...	17
Tippera—Preparation of some sets up and traces for Comilla Survey School.	Ditto	29	5	...	34	29	5	...	34
Observation of Azimuths, etc., for erecting of standards for checking instruments.	Survey	80	14	1	95	80	14	1	95
Eastern Bengal State Railway Experimental Survey for acquisition and relinquishment.	Ditto	323	62	...	385	323	62	...	385
Tracing of historical maps of Revenue Survey of 1833-34 by Captain Wilcock and Lieutenant Omaney.	Mapping	311	59	3	373	311	59	3	373
Preparation of Triangulation charts and data ...	Ditto	113	21	1	134	312	44	1	357
Supply of materials for 3" and 6" maps of Revision of Calcutta maps to Surveyor-General's office.	Ditto	629	119	5	753	629	119	5	753
Bengal Imperial Standard Mapping Section (Provincial share of Bengal).	Ditto	2,741	...	...	2,741	3,639	...	...	3,639
Tippera—Comilla Survey School	.....	14,012	...	...	14,012	81,458	...	285	81,743
Drawing Office, Bengal.									
Bengal—Record section	.....	4,094	772	27	4,890	39,716	7,761	412	47,889
Do.— Thana Mapping section	.....	12,319	2,331	156	14,806	56,764	9,809	1,139	67,712
Do.— Copying section	.....	6,146	1,182	136	7,464	9,947	1,824	189	11,960
Reproduction Section.									
Reproduction of village maps of mauzas Char Amanulla and Char Bharat Sen, district Noakhali.	Reproduction ...	196	36	74	306	196	36	74	306
Reproduction of maps to illustrate report on changes of district boundaries.	Ditto	878	166	333	1,377	878	166	333	1,377
Reproduction of village maps of thana Mathbariya, district Bakarganj.	Ditto	733	138	275	1,146	733	138	275	1,146
Reproduction of Calcutta added area maps for sale.	Ditto	69	13	25	107	3,437	449	712	4,598
Reproduction of a diagram for Board of Revenue.	Ditto	7	1	2	10	7	1	2	10
Reproduction of 16" Noakhali maps	Ditto	1	...	...	1	1	...	...	1
Ditto Kalimpong maps	Ditto	11	2	3	16	11	2	3	16
Ditto one specimen for Principal, Comilla School.	Ditto	8	1	3	12	8	1	3	12
Reproduction of 1"= 1 mile maps of three thanas of district Tippera.	Ditto	3	...	1	4	3	...	1	4
Reproduction of 4" maps of thana Baraigram, district Rajshahi.	Ditto	33	6	12	51	33	6	12	51
Reproduction of 16" cadastral sheets for Settlement Officer, Noakhali.	Ditto	93	17	35	145	93	17	35	145
Reproduction of line of levels in Khulna-Nadia River report maps.	Ditto	883	168	332	1,383	883	168	332	1,383
Reproduction of 16" Cadastral sheets for Collector, Bakarganj.	Ditto	171	32	64	267	171	32	64	267
Reproduction of 16" maps of Bakarganj ...	Ditto	55	9	20	84	55	9	20	84
Ditto 16" Noakhali maps	Ditto	124	24	47	195	124	24	47	195
Ditto correction slip to the map of thana Dimla, district Rungpur.	Ditto ...	2	...	...	2	2	...	...	2
Reproduction of 1" map of 18 districts in Bengal	Ditto	178	33	65	276	178	33	65	276
Ditto 4" alamats in Bengal	Ditto	51	9	19	79	51	9	19	79
Ditto sheets of Kalimpong Survey ...	Ditto	441	83	164	688	441	83	164	688
Ditto Bakarganj Diara report maps	Ditto	25	5	9	39	25	5	9	39
Ditto 4" Forest reserve maps of district Jalpaiguri.	Ditto	32	5	11	48	32	5	11	48
Reproduction of 4" maps of Jalpaiguri forest ...	Ditto	9	1	3	13	9	1	3	13
Ditto 13" maps of Faridpur for Settlement Officer.	Ditto	53	9	20	82	53	9	20	82
Reproduction of Borgadigi diagrams for Revenue Department.	Ditto	16	3	6	25	16	3	6	25
Carried over ...	.....	1,37,297	22,790	5,207	1,65,294	...	...	...	...

APPENDIX II—*concld.*

Statement of sums expended during the year ending 30th September 1916—concld.

DISTRICT AND TRACT.	Description of Work.	EXPENDITURE INCURRED DURING THE YEAR UNDER REPORT.				TOTAL EXPENDITURE FROM INCEPTION TO END OF THE YEAR UNDER REPORT.			
		Direct charge including share of general section, if any.	Share of control.	All indirect charges other than share of control.	Total.	Direct charges including share of general section, if any.	Share of control.	All indirect charges other than share of control.	Total.
1	2	3	4	5	6	7	8	9	10
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Brought forward ...	.....	1,37,297	22,790	5,207	1,65,294	...	...	...	...
Reproduction Section—concld.									
Reproduction of maps of thanas Sealo and Manikganj.	Reproduction	54	9	20	83	54	9	20	83
Reproduction of 4" maps of thanas Srinagor, Naraingunj, Rupganj and Munshiganj, district Dacca.	Ditto	33	5	11	49	33	5	11	49
Reproduction of Cadastral maps of Comilla School.	Ditto	4	...	1	5	4	...	1	5
Reproduction of village maps of Wards' Estates and Dehimandalsher Estate, Tauzi No. 340, district Murshidabad.	Ditto	414	78	156	648	414	78	156	648
Reproduction of sheets of South Suburban Municipality for Calcutta Improvement Trust.	Ditto	158	28	59	245	Not available.			
Reproduction of reference slips for Calcutta Improvement Trust.	Ditto	204	38	77	319	204	38	77	319
Reproduction of Scheme V for Calcutta Improvement Trust.	Ditto	355	66	135	556	355	66	135	556
Reproduction of one index map for Maniktola Municipality for Calcutta Improvement Trust.	Ditto	1	...	...	1	Not available.			
Reproduction of 50' map of South Suburban Municipality for Calcutta Improvement Trust.	Ditto	1,451	264	561	2,276	Ditto.			
Reproduction of index maps for Survey and Settlement Annual Report in Bengal.	Ditto	189	...	58	247	189	...	58	247
Reproduction of maps of 22 villages of private estate for Settlement Officer, Burdwan.	Ditto	28	5	10	43	28	5	10	43
Reproduction of Jalpaiguri Tea Garden maps ...	Ditto	59	9	23	91	790	98	162	1,050
Ditto Calcutta added area revised sheets for Corporation of Calcutta.	Ditto	25	5	9	39	Not available.			
Reproduction of Maniktóla maps for sale ...	Ditto	325	62	124	511	Ditto.			
Ditto Triangulation charts of districts Nadia, Bankura and Birbhum.	Ditto	37	8	14	59	37	8	14	59
Reproduction of Howrah Municipality preliminary maps, set up form index maps, etc.	Ditto	41	8	15	64	Not available.			
Reproduction of Bakarganj 16" party settlement maps.	Ditto	87	14	33	134	Ditto.			
Reproduction of 16" maps for South Suburban Municipality and also index maps.	Ditto	54	9	20	83	Ditto.			
Reproduction of 16" maps of villages Chargosain, Thak Algi, Thak Khotadhati, Musapur Government temporarily-settled private estate, district Noakhali.	Ditto	35	7	14	56	35	7	14	56
Reproduction of maps of thana Matbaria, district Bakarganj, for final report on resettlement of Tushkhali estate.	Ditto	11	2	4	17	11	2	4	17
Reproduction of Eastern Bengal Railway Manover maps.	Ditto	18	4	6	28	18	4	6	28
Reproduction of 16" sheets for petty settlements, district Faridpur.	Ditto	288	55	111	454	Not available.			
Reproduction of 16" maps, district Chittagong, for sale.	Ditto	371	70	142	583	Ditto.			
Reproduction of village maps of certain private estates, district Burdwan.	Ditto	5	1	2	8	5	1	2	8
Reproduction of estates Madrasa, Chandbati, Binode Bodi of thana Sonarpur, etc., district 24-Parganas.	Ditto	68	12	25	105	68	12	25	105
Reproduction of 16" maps of Lalpur estate, district Murshidabad.	Ditto	1,006	190	378	1,574	1,006	190	378	1,574
Reproduction of 3 index maps of Tolygunj, South Suburban and Cossipore-Chitpur Municipalities.	Ditto	2	...	...	2	Not available.			
Reproduction of 16" maps of Hariharpur, district Murshidabad.	Ditto	584	111	218	913	584	111	218	913
Reproduction of two Cadastral sheets of village Kaukaria, within Lalpur estate, district Murshidabad.	Ditto	146	27	55	228	146	27	55	228
Reproduction of one form for Officer-in-charge Bengal Traverse Party.	Ditto	8	1	3	12	8	1	3	12
Reproduction of index maps of Howrah Municipality.	Ditto	2	...	...	2	Not available.			
Reproduction of 16" wall maps of Cossipore-Chitpur.	Ditto	31	5	10	46	Ditto.			
Reproduction of 16" Cadastral maps of district Hooghly.	Ditto	14	3	5	22	14	3	5	22
Reproduction of 16" maps of Daudkar zamindari, district Noakhali.	Ditto	12	3	4	19	12	3	4	19
Reproduction of Cossipore-Chitpur Municipal maps.	Ditto	112	22	41	175	Not available.			
Reproduction of index to Cossipore-Chitpur Municipal maps.	Ditto	1	...	...	1	Ditto.			
Reproduction of diagram for Inspector-General of Prisons.	Ditto	12	3	4	19	12	3	4	19
Total ...	.....	1,43,542	23,914	7,555	1,75,011	...	...	...	...
GRAND TOTAL ...	.....	2,83,167	48,266	33,703	3,65,136	...	...	...	...

APPEN

DRAWING OFFICE OUTTURN,

For the year ending

REPRODUCTION

NAMES OF DISTRICTS, ETC.	VILLAGE MAPS.							Miscellaneous.		
	Previously supplied.		Supplied during the year.		Total to date.		Complete or Incomplete.			
	Sheets or maps.	Copies.	Sheets or maps.	Copies.	Sheets or maps.	Copies.		Previously supplied.	Supplied during the year.	Total to date.
1	2	3	4	5	6	7	8	9	10	11
BENGAL.										
Bakerganj	840	72,851	100	14,092	940	86,943	Incomplete	2,202	...	2,202
Bankura	...	...	...	...	...	...	...	162	...	162
Birbhum	229	30,388	...	...	229	30,388	Complete	...	...	...
Bogra	9	400	...	...	9	400	...	29	...	29
Burdwan	25	865	28	230	53	1,095	Incomplete	474	...	474
Calcutta	...	...	...	...	...	...	...	40,238	4,942	45,180
Chittagong	9,391	60,738	75	3,750	9,466	64,488	Incomplete	1,578	16	1,594
Dacca	3,521	540,124	2,748	320,295	6,269	860,419	Ditto ...	4,215	1,200	5,415
Darjeeling	...	...	...	...	...	...	...	1,800	...	1,800
Dinajpur	52	5,163	...	...	52	5,163	Complete	195	...	195
Faridpur	7,025	679,028	59	6,217	7,084	685,245	Incomplete	939	...	939
Hooghly	148	7,160	10	867	158	8,027	Complete	...	...	...
Howrah	...	...	...	..	...	...	...	1,058	...	1,058
Jalpaiguri	2,983	233,123	...	...	2,983	233,123	Complete	7,639	...	7,639
Jessore	41	4,300	...	...	41	4,300	Ditto ...	732	...	732
Khulna	66	3,802	...	...	66	3,802	Ditto ...	15	...	15
Malda	10	1,000	...	...	10	1,000	Ditto ...	...	...	...
Midnapore	8,926	123,865	3,750	227,062	12,676	350,927	Incomplete	965	...	965
Murshidabad	29	104	59	43,675	88	43,779	Ditto ...	255	...	255
Mymensingh	5,386	425,387	810	85,157	6,196	5,10,544	Ditto ...	1,787	...	1,787
Nadia	4	825	...	...	4	825	Complete	6	...	6
Noakhali	96	8,121	78	7,218	174	15,339	Incomplete	1,040	100	1,140
Pabna	42	3,960	...	...	42	3,960	Complete	...	...	...
Rajshahi	24	5,090	510	69,907	534	74,997	Incomplete	1,100	...	1,100
Rangpur	...	...	...	...	...	...	...	760	...	760
Tippera	36	2,250	...	...	36	2,250	Complete	8,188	...	8,188
24-Parganas	...	...	17	867	17	867	...	594	...	594
Cooch Behar	...	...	...	...	...	...	...	2,705	...	2,705
Departmental Returns	...	...	...	...	...	...	...	...	17,049	17,049
Extra-Departmental Returns ...	...	...	...	...	...	...	...	...	56,875	56,875
Total ...	38,883	2,207,544	8,244	779,337	47,127	2,987,881	...	78,676	80,182	58,858

DIX III.

CALCUTTA AND SHILLONG.

the 30th September 1916.

SECTION.

Triangulation charts.			Jurisdiction maps 1″ = 1 mile.						Jurisdiction maps 4″ = 1 mile.			District maps.		
			Preliminary.			Final.								
Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26.
102	...	102	9,590	135	9,725	...	...	...	...	...	...	556	...	556
...	63	63	1,095	...	1,095	...	...	...	...	...	...	50	...	50
...	63	63	148	...	148		...	...	...	...	...	1	...	1
...	...	...	136	...	136	...	...	...	...	...	...	56	...	56
52	...	52	1,058	...	1,058	...	...	...	...	...	...	50	...	50
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	1,500	1,500	...	...	...	...	...	...	56	...	56
102	...	102	2,150	1,000	3,150	...	...	...	...	4,015	4,015	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	768	...	768
52	...	52	300	1,050	1,350	...	...	...	600	...	600	56	...	56
102	...	102	705	...	705	150	...	150	3,500	...	3,500	556	...	556
52	...	52	895	300	1,195	1,800	...	1,800	...	...	...	175	...	175
72	...	72	775	...	775	...	...	...	...	...	...	50	...	50
52	...	52	...	450	450	...	...	...	...	1,155	1,155	81	...	81
52	...	52	1,145	750	1,895	2,400	...	2,400	...	...	...	50		50
50	...	50	1,545	...	1,545	...	...	...	...	...	...	50	...	50
50	...	50	130	...	130	...	...	...	...	...	...	56	...	56
52	...	52	320	100	420	...	...	...	...	1,272	1,272	550	...	550
52	...	52	292	2,850	3,142	...	...	...	...	...	...	50	...	50
102	...	102	540	...	540	...	...	...	...	...	...	556	...	556
...	...	...	1,305	...	1,305	...	...	...	...	...	...	50	...	50
52	...	52	300	1,100	1,400	750	...	750	...	...	...	56	...	56
52	...	52	172	...	172	...	...	...	...	...	...	556	...	556
50	...	50	636	36	672	...	...	...	...	...	...	56	...	56
...	...	...	...	...	...	...	...	...	...	...	...	56	...	56
52	...	52	28	45	73	...	...	...	...	24	24	556	...	556
52	...	52	2,145	...	2,145	1,050	...	1,050	...	...	...	50	...	50
50	...	50	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3,252	426	4,378	25,460	9,316	34,776	6,150	...	6,150	4,100	6,966	11,066	5,147	...	5,147

APPENDIX

DRAWING OFFICE OUTTURN,

For the year ending the

MAP RECORD

DISTRICTS.	ORIGINAL CADASTRAL AND TOPO MAPS.			REVENUE DIARA AND TOPO MAPS.						TRAVERSE VOLUMES		
	Received.			Received.			Issued.			Received.		
	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.
	Sheets.	Sheets.	Sheets.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.
	27	28	29	30	31	32	33	34	35	36	37	38
BENGAL.												
Bakarganj	6,016	130	6,146	12	...	12	...	...	...	67	...	67
Bankura	514	...	514	4	...	4	...	...	...	7	...	7
Birbhum	311	...	311	51	...	51	...	...	...	4	1	5
Bogra	293	...	293	14	...	14	...	...	...	5	...	5
Burdwan	154	16	170	6	...	6	...	...	...	29	...	29
Calcutta	...	...	...	...	...	...	...	...	...	...	28	28
Chittagong	3,553	...	3,553	20	...	20	...	...	...	42	...	42
Dacca	1,615	3,143	4,758	5	...	5	...	...	...	49	28	77
Darjeeling	500	49	549	11	...	11	...	...	...	13	6	19
Dinajpur	994	...	994	19	...	19	...	...	...	36	...	36
Faridpur	5,684	221	5,905	8	...	8	...	...	...	39	2	41
Hooghly	215	26	241	15	...	...	...	...	...	21	...	21
Howrah	217	...	217	...	...	...	...	...	...	2	1	3
Jalpaiguri	4,060	824	4,884	13	...	13	...	...	...	40	33	73
Jessore	204	...	204	16	...	16	...	...	...	23	3	26
Khulna	429	...	429	2	...	2	...	...	...	12	4	16
Maldah	173	...	173	25	...	25	...	...	...	6	8	14
Midnapore	2,557	1,881	4,438	17	...	17	...	...	...	74	13	87
Murshidabad	255	59	314	30	...	30	...	...	...	3	4	7
Mymensingh	4,310	1,636	5,946	60	...	60	...	...	...	47	6	53
Nadia	...	...	...	27	...	27	...	...	...	4	...	4
Noakhali	692	111	803	5	...	5	...	...	...	16	...	16
Pabna	304	112	416	27	...	27	...	...	...	8	2	10
Rajshahi	7	500	507	62	...	62	...	...	...	4	8	12
Rangpur	...	...	...	13	...	13	...	...	...	20	1	21
Tipperah	1,888	206	2,094	18	...	18	...	...	...	33	3	36
24-Parganas	422	...	422	43	...	43	...	...	...	17	30	47
Cooch Behar	...	...	...	6	...	6	...	...	...	14	...	14
Ganges Diara (miscellaneous) ...	...	...	...	24	2	26	...	...	...	41	29	70
Sikkim	...	...	...	...	...	...	...	...	...	1	...	1
Hijli	...	...	...	8	...	8	...	...	...	...	...	...
Total	35,367	8,914	44,281	561	...	561	...	...	...	677	210	887

III—*concluded.*

CALCUTTA AND SHILLONG—*concluded.*

30th September 1916—concluded.

AND ISSUE SECTION.

OF ALL KINDS.			FIELD BOOKS.			Calcutta surveys original and fair maps.			Thana Trijunction index and Traverse, plots, etc.			Traces for reproduction.		
Issued.			Received.											
Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.
Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.
39	40	41	42	43	44	45	46	47	48	49	50	51	52	53
...	...	...	63	...	63	...	...	...	73	147	220	2,372	...	2,372
...	...	...	...	...	...	...	...	...	17	...	17	...	...	...
...	...	...	3	...	3	...	...	...	22	...	22	...	...	...
...	...	...	3	...	3	...	...	...	...	...	...	181	...	181
...	...	...	34	...	34	...	...	...	5	15	20	...	...	...
...	...	...	...	28	28	869* / 1,341†	1,850* / 535†	2,719* / 1,876†	...	...	...	...	...	...
...	...	...	60	...	60	...	...	...	20	23	43	3,374	...	3,374
...	...	...	108	19	127	...	...	...	77	239	316	...	...	...
...	...	...	20	12	32	...	...	...	7	54	61	...	...	...
...	...	...	4	...	4	...	...	...	...	35	35	212	...	212
...	...	...	37	1	38	...	...	...	205	233	438	...	...	...
...	...	...	68	...	68	...	...	...	9	...	9	...	...	...
...	...	...	2	1	3	...	...	...	2	...	2	...	...	...
...	...	...	90	7	97	...	...	...	241	62	303	...	...	...
...	...	...	2	...	2	...	...	...	...	25	25	...	...	...
...	...	...	29	6	35	...	...	...	95	...	95	...	...	...
...	...	...	3	4	7	...	...	...	10	23	33	...	...	...
...	...	...	143	53	196	...	...	...	248	140	388	176	...	176
...	...	...	...	2	2	...	...	...	17	3	20	266	...	266
...	...	...	63	23	86	...	...	...	90	218	308	...	...	...
...	...	...	1	...	1	...	...	...	11	13	24	...	...	...
...	...	...	3	...	3	...	...	...	...	29	29	90	...	90
...	...	...	3	1	4	...	...	...	...	37	37	...	...	...
...	...	...	1	43	44	...	...	...	...	47	47	...	...	...
...	...	...	9	2	11	...	...	...	31	4	35	...	...	...
...	...	...	21	6	27	...	...	...	...	16	16	...	...	...
...	...	...	28	7	35	...	...	...	54	...	54	...	16	16
...	...	...	23	...	23	...	...	...	...	...	...	...	...	...
...	2	2	49	25	74	...	...	...	2	244	246	...	...	...
...	...	...	2	...	2	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	2	2	872	240	1,112	2,210	2,385	4,595	1,236	1,607	2,843	6,671	16	6,687

* Original sheets. † Fair sheets.

APPENDIX IV.

Statement showing Traverse Survey and reproduction of maps of the districts under Settlement.

NAME OF DISTRICT.	TRAVERSE SURVEY.							REPRODUCTION.							Remarks for increase or decrease in expenditure.
	Total area of the district estimated for survey.	Area completed up to previous year.	Estimated programme for the year under report.	Area completed during the year under report.	Remaining.	Estimated cost for the year.	Actual cost for the year (including cost-trol).	Forecast by the Director of Land Records, Bengal.		Number of sheets received.	Actual number of copies reproduced.	Estimated cost for the year.	Actual expenditure for the year (including control.)	Difference between columns 9 and 11.	
								Number of sheets.	Number of pulls.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.	Rs.	Rs.					Rs.	Rs.		
Mymensingh	6,332	6,786 (a)	21 (a)	24 (a)	...	28,500	2,060	3,344	243,420	2,864	85,157	(c)	6,992	-483	
Districts Noakhali and Tipperah.	3,201	1,806	700	747	648	58,500	53,359	336	36,105	...	...		...	-336	
Rajshahi	2,647	2,990 (a)	500 (a)	568 (a)	...	41,000	39,268	1,608	160,950	1,621	69,907		5,977	+ 5	
Midnapore	4,133	4,419 (b)	50 (b)	36 (b)	...	28,000	4,838	3,764	256,722	4,689	227,062		17,271	+925	
Dacca	...	...	...	...	...	25,000	...	1,050	105,500	1,402	320,295		31,845	+352	

(a) Includes Diara area.
(b) Includes area retraversed.
(c) The figures in column 7 represent estimated cost for both Traverse Survey and Map-reproduction; as separate estimates for both are not available.

B. S. Press—5-1-1917—2292J—375—S. C. R.

REPORT

ON

SURVEY AND SETTLEMENT OPERATIONS

IN BENGAL

FOR THE YEAR ENDING

30TH SEPTEMBER 1916.

CALCUTTA:

THE BENGAL SECRETARIAT BOOK DEPOT.

1917.

[Maximum limit 30 pages.]

REPORT

OF THE

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS, BENGAL.

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DEPARTMENT OF LAND RECORDS, BENGAL.

No. 1667.

FROM M. C. MCALPIN, ESQ., I.C.S.,

Director of the Department of Land Records, Bengal,

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,

REVENUE DEPARTMENT.

Dated Calcutta, the 12th January 1917.

SIR,

I HAVE the honour to submit the following report on the Survey and Settlement operations conducted in the Presidency of Bengal under the supervision of this Department during the year ending 30th September 1916. I was in charge of the Department throughout the year.

Introductory.

2. Major operations financed from Imperial funds were in progress in 8 districts, viz., Faridpur, Jalpaiguri, Dacca, Mymensingh, Midnapore, Rajshahi, Noakhali and Tippera. No new district was added to the programme, although Bankura and Jessore should have commenced during the year. Work in these two districts was stopped for financial reasons owing to the war. Thus in cadastral survey new ground was broken in a comparatively small area of 1,811 square miles against 3,602 and 3,262 square miles in the preceding two years. In the later stages, however, programme and performance exceeded the figures of previous years. Attestation was done in 3,632 square miles against 3,234 of the previous year and final records were prepared for 5,302 square miles against 3,880 of the same year. Operations in Faridpur and Jalpaiguri were successfully brought to a close at the end of the financial year 1915-16, thus bringing the total number of districts in which settlement operations have been completed to four.

3. In minor operations also the programme was considerably curtailed for financial reasons and no new land revenue settlement was taken up. Applications for a record-of-rights in private estates tended, however, to increase, and petty settlements were scattered over numerous districts, viz., Burdwan, Hooghly, Howrah, 24-Parganas, Nadia, Murshidabad, Bakarganj, Faridpur, Malda and Noakhali. The most important minor operation was the revisional settlement of estate Fatehsingh belonging to the Nawab Bahadur of Murshidabad, preliminary to a scheme of continuous maintenance of the record and the application of the certificate procedure for recovery of arrears of rent. In minor operations altogether 38·74 square miles were cadastrally surveyed and records of 106·03 square miles finally published.

The total area of which a record-of-rights has now been completed in the Presidency is 19,486 square miles.

PART I.

Major operations.

4. **Dacca.**—Mr. F. D. Ascoli, I.C.S., was in charge throughout the year except for a short period at the commencement up to 25th October 1915, when Mr. F. W. Robertson, I.C.S., acted for him.

5. The following statement compares the sanctioned programme with performance :—

	For the year.		Up to date	
	Programme.	Performance.	Programme.	Performance.
Statistics	...	826	3,130(*a*)	3,130
Final maps	704	1,361	3,130	3,130
Final copy	945	1,930	2,445(*a*)	3,030
Recovery	1,415 Rs. 8,00,000	1,231 Rs. 9,70,235	2,460(*a*) Rs. 14,34,633	1,796 Rs. 13,17,555
Case-work	500	400	2,460(*a*)	500(*b*)

(*a*) Actual area of estimated area. (*b*) Revised figure.

The net result of the year's work is that performance is now considerably in advance of the programme notably in printing, which has been completed except for 29,800 khatians affected by *diara* proceedings. Recovery, measured in square miles, is nominally a little behind the full programme owing to the fall in jute prices on the outbreak of the war which retarded matters at the commencement, but almost two more lakhs were collected during the year than were anticipated. The arrears in the full programme will soon be wiped off. The arrears in case-work are due to the orders of Government postponing case-work in view of the reduction in the budget for the financial year 1915-16.

6. Re-settlement of land-revenue has been completed, whilst *diara* resumption is almost complete. Cess revaluation was completed in the year under review. It is now hoped that the settlement proceedings will close six months before they are due according to the programme to close, whilst matters have so far advanced that since the end of the year under review Mr. Ascoli has already given over charge of his office as Settlement Officer and left Babu Kali Pada Maitra, Probationary Deputy Collector, in charge.

7. The following statement compares the estimated and actual expenditure and rates :—

	Estimated.		Actual.		Standard rate.
	Expenditure.	Rate.	Expenditure.	Rate.	
	Rs.	Rs.	Rs.	Rs.	Rs.
Statistics	...	...	21,520	26	10
Final maps	4,928	7	4,702	4	6
Final copy	91,665	97	1,04,321	54	54
Recovery	35,620	25	29,818	21	29
Jamabandi, *diara* and miscellaneous ...	5,000	...	7,208	...	...
Case-work	8,000	16	5,131	13	16
Supervision	44,000	...	41,121	...	...
Contingencies, etc.	50,787	...	55,748	...	...
Total ...	2,40,000	...	2,69,569	...	...

8. The total expenditure during the year exceeds that of the sanctioned estimate, but this is illusive, as there has really been a considerable saving on account of the cheaper rate of printing and the amount of printing done

in advance of the programme. The total expenditure up to date is Rs. 22,29,675 against an estimate up to date of Rs. 22,90,000. Both in respect of performance and expenditure the results of this settlement are in every way satisfactory.

9. The progress of the printing branch was again one of the most satisfactory items of the year's programme. The average reached per press during the year was 2,200 khatians per month against an originally estimated number of 1,500, whilst one press on one occasion turned out as many as 4,011.

10. After the set-back due to jute prices recovery rapidly brightened. Raiyati demands are almost invariably collected amicably and the main trouble is the realization of demands from petty proprietors and tenure-holders, especially where a large number of co-sharers exists. This has resulted in the issue of 13,608 certificates for a sum of Rs. 1,32,073, of which 2,529 were satisfied for Rs. 35,356-12 without the issue of a distress warrant, whilst in 592 cases Rs. 9,743-4 were realized after the mere issue of such a warrant. These certificates were mainly issued in the closing months of the year. Though the amount under certificate is not small, viz., 10 per cent. of the corresponding demand, yet this percentage has been reached elsewhere. The Settlement Officer has carefully watched the issue of certificates, and none of the more coercive processes of the Act have been used, but his attention has been drawn to the necessity of keeping down their numbers. It is anticipated that in the future there will be a considerable reduction in the proportion of certificates issued as the people have now got accustomed to the automatic working of the recovery procedure.

Under section 105 the landlords derived an increase of rent of 21 per cent. Resettlement of land revenue was practically finished the previous year and only a small area came under revision during the year under review, of which the results are given in Appendix IV. Sales of maps and khatians realised an anticipated sum of Rs. 20,000.

11. **Mymensingh.**—Mr. F. A. Sachse, I.C.S., was in charge throughout the year assisted by Mr. L. R. Fawcus, I.C.S., who, however, reverted on the 19th April 1916.

12. The following statement compares performance with the sanctioned programme in the main items :—

	For the year.		Up to date.	
	Estimated programme.	Performance.	Estimated programme.	Performance.
	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.
Attestation	1,128	1,068	6,693*	6,448
Objections	1,192	1,246	6,483	6,269
Janch	914	1,309	5,783	6,217
16″ maps	1,200	1,010	5,363	4,875
Final copy	1,080	1,474	5,193	5,369
Recovery	1,380	1,140	4,575	4,203
Case-work	1,380	1,600	3,601	2,798

* Actual area is 6,448 square miles.

Attestation is practically complete, *janch* is in advance of the programme whilst printing has made rapid strides, and also gone ahead of the programme. Case-work is on the whole behind the programme, because it was stopped under Government orders owing to the reduction of the budget for 1915-16, but nevertheless a larger amount was done during the year than anticipated owing to compromises in a large number of cases. Considerable progress was also made in the revision of land-revenue, *diara* resumption enquiries and other miscellaneous work ; some 68 square miles of pending *bujharat* from the sixth block were also completed. Everything is in train for the systematic completion of the settlement, though meanwhile the space in the offices is being choked with the records which the Collector and the Judge should, but cannot for want of space, take over.

13. The following statement compares estimated and actual expenditure and rates :—

—	Estimated expenditure.	Estimated rate.	Actual expenditure.	Actual rate.	Standard rate.
	Rs.	Rs.	Rs.	Rs.	Rs.
Attestation ...	68,364	61	61,584	58	66
Objections ...	30,000	24	8,165	7	27
Final office work ...	85,715	79 (calculated).	1,00,047	74	92
Recovery ...	20,241	15	20,066	18	29
Case-work ...	39,199	28	13,660	9	16
Miscellaneous ...	11,406	...	19,684	...	...
Supervision ...	90,000	...	75,077	...	...
Contingencies, etc. ...	54,111	...	43,876	...	...
Total ...	3,99,036	...	3,42,159	...	...

The figures for cost-rate show that there has generally been very economical working. The decrease in the cost-rate for objections is due to their simple nature. The slight increase in the cost-rate for recovery is owing to the attempts made to collect scattered outstanding demands, an expensive business. The low cost-rate for case-work is no guide to the future because of the large number of cases compromised. The increase of expenditure under the head "Miscellaneous" is accounted for by the fact that *jamabandi* and *diara* were not properly allowed for in the original estimates. The excess in expenditure under the head "Office-work" is due to the press being ahead of the programme and slightly to improvements in checking and sorting. The expenditure up to date is Rs. 35,97,755 against an estimate of Rs. 37,11,140. Both in progress and in expenditure, the results of this settlement are very satisfactory.

14. This was the last year of attestation in Myménsingh. The question of the status of the *jotedars* in the Patiladaha villages in the Jamuna *diara* again arose, but owing to the recent formation of the *chars* there was apparently less difficulty in deciding on the issue of the permanence of tenure. The existence of rent-free owners owing allegiance to no man, was a feature of the eastern area. The Madhupur jungle area required great patience. The Settlement Officer reports that the landlords in the jungle treat their tenants very badly. Illegal enhancements, forcible dispossession and the exaction of high abwabs are more prevalent in it than in any other part of the district.

15. The next principal item in the programme apart from printing, which more than maintained the promise of last year, was recovery. The programme for the year was the recovery of Rs. 6,90,000, but by special efforts Rs. 7,08,640 were collected. There are altogether arrears of about three lakhs of which the major portion is due from landlords. They have been pending for some time and the Settlement Officer now intends to enforce the certificates issued against them if they do not pay. They have hitherto been treated with the utmost leniency. The Settlement Officer is taking special measures to collect other scattered arrears amicably.

16. Case-work has resulted on the average in an increase of 20 per cent. of rent due mainly to increase in area. In estates under revision of land-revenue an increase has been obtained from Rs. 27,996 to Rs. 40,970 mainly owing to the low rates at which the lands were previously rented. The proceeds from sales of maps and khatians were Rs. 50,781 against an estimate of Rs. 12,000. The large sales under this head is a feature of this settlement.

17. **Faridpur.**—The operations in Faridpur came to a successful conclusion at the end of the month of February under Mr. B. C. Prance, I.C.S. Owing to the fall in the price of jute recovery had been impeded earlier with the result that, despite the better conditions prevailing at the commencement of the year, a sum of Rs. 62,769 was handed over to the Collector of Faridpur for realisation, and Rs. 9,684 to the Settlement Officer, Tippera-Noakhali. At the end of the year Rs. 33,209 and Rs. 6,244 had been

collected by these officers respectively by the certificate procedure. The conclusion of the operations led to discussions on the proper management of Settlement record-rooms and proposals for the same are under the consideration of Government.

18. **Midnapore.**—Mr. A. K. Jameson, I.C.S., was in charge assisted by Charge Officer Mr. G. H. W. Davies, I.C.S., up to the 1st July, when he went on leave. Mr. Davies acted for him for the remainder of the year.

19. The following statement compares the sanctioned programme with performance :—

	For the year.		Up to date.	
	Sanctioned programme.	Performance.	Sanctioned programme.	Performance.
Cadastral, *Khanapuri* and Initial Recess.	324	293	4,249	4,136
Attestation	968	998	3,925	3,873
Objection	968	1,144	3,925	3,863
Janch	1,680	1,036	3,925	3,157
Maps	1,549	1,533	3,925	2,464
Printing	1,230	1,359	2,966	2,741
Recovery	1,793	1,235	2,490	1,235

20. There are no arrears under cadastral, etc., as the actual area has been completed. Some attestation was done in advance in the smaller previously-surveyed areas scattered amongst the villages dealt with during the Contai Settlement. The objections pending from last year have been disposed of. The heavy programme of *janch* was not completed owing to the difficulty of obtaining and retaining an efficient and healthy staff. Towards the end of the year, however, progress improved considerably. Printing was in advance of the programme for the year and the arrears of the previous years are being rapidly overhauled. Recovery was started in the year as soon as arrangements could be made and the outturn is satisfactory and as much as could be expected for the first year. Owing to the reduction of the budget for 1915-16, no provision was made for starting case-work in that financial year and its commencement was accordingly postponed to the next convenient season, viz., the present field season.

21. As regards expenditure and the estimate for the operations, a special report is under submission to Government. Provision was not made in the original estimate for the large number of interests now found. It is accordingly now estimated that there will be an appreciable excess over the original estimate, which requires more detailed examination than can be given in an annual report. The special report will accordingly cover the enquiry directed by Government in last year's Resolution.

22. The area under field-work consisted of a very scattered area comprising (1) villages originally included in the programme for 1913-14, but omitted on account of the distress caused by the floods in the rains of 1913, (2) Sujamutha estate, and (3) portions of villages included in the Contai Settlement of which only those portions which appertain to Government and temporarily-settled estates had been taken up in that settlement. The scattered nature of the area made work both expensive and difficult. Both in Sujamutha and in the areas within the previously-settled area a comparison had to be made with a previous record and discrepancies reconciled. In Sujamutha the seven estates belonging to the Maharaja of Burdwan were divided at his request according to the thak; whilst in the areas within the previously-settled area, problems regarding revenue-free and rent-free areas arose which would have best been settled, if those areas had been taken up along with the Contai Settlement. In the case of the third group, when the omitted portions aggregated less than 40 acres, the previous map was used as the basis of the work, when they aggregated more than 40 acres, the area was retraversed.

23. Attestation was completed of the fourth block and as many of the smaller portions under cadastral survey as possible Progress was at first slow, but as a result of a special enquiry it was considerably accelerated, though ill-health dogged the steps of most of the camps. Illegal enhancements were rare, but the chief stumbling-blocks to progress were the large number of rent-free claims and the record of *chākrān* lands. The Settlement Officer anticipates that when figures are completed for this area, it will be found that one out of eight interests is rent-free. These claims were all carefully examined. The most interesting characteristics of the block consisted in the various systems of rent in force described by the Settlement Officer as follows :—

"The area, as described in last year's report, is low-lying and ill-supplied with drainage. In years of excessive rainfall, it becomes water-logged, and harvest is rendered precarious. In some villages practically the entire crop consisted of *boro* paddy ; in other villages, reports showed that in the last 20 years only four or five good harvests had been reaped. In such circumstances fixed cash rents are impracticable, and the ingenuity of the people has devised several systems mainly based on produce, to meet these conditions. One village in thana Daspur was found where some tenants hold lands under the same landlord on four different systems of rent. Besides the ordinary systems of cash, *bhag*, *sanja* (fixed produce rents), mixed cash and *sanja*, the following deserve attention :—

(1) *Kut khamar.*—This approximates to *danabandi* ; while the crop is in the field, crop cutting experiments are made on the basis of which the landlord's share, which is usually half the produce, is determined. The tenant pays the value of this in cash at the market rates of *Posh* or *Magh*.

(2) *Taja khārāpa* (*also called Hari-Khamari*).—In this there is a fixed village rate based on a standard outturn. While the crop is in the ground, the probable outturn for the entire area under cultivation is estimated by the landlord's man, the tenant, and the village headman, and reduced to outturn per bigha. If the outturn per bigha is equal to or exceeds a fixed allowance per bigha (for cost of cultivation) *plus* the amount of grain obtainable for the fixed rate at market rates the bigha is called *taja*—

For example :—Let a rupees = fixed rate per bigha,
b rupees = market rate per maund,
x maunds = tenant's allowance per bigha,
y maunds = estimated outturn per bigha ;

then if y is greater than or $= x + \frac{a}{b}$ the bigha is *taja* and rent is levied on the total area under cultivation at rupees a per bigha. If y is less than $x + \frac{a}{b}$ the bigha is called *khārāpa* and rent is levied at rupees a per bigha on $\frac{y}{x + a/b}$ of the total area under cultivation. Thus when the bigha fails to produce the amount required for remuneration of the landlord and compensation of the tenant, the shares of both are proportionately diminished. This system is somewhat complicated and the complication is increased by the fact that the fixed rate per bigha varies throughout the different kunds (blocks) of the village, but it is appreciated by the raiyats. When the year is bad, their rents are automatically reduced to a fair level, while in exceptionally good years they remain at the normal standard.

(3) *Dekhā-Sunā.*—This system which corresponds to the *jaidadi* of North Bhagalpur, was found in only a few villages. The tenant pays a fixed money rate per bigha for the portion of the holding which produces a crop irrespective of the nature of the crop or the outturn.

(4) *Fasalmukhi.*—This is the same as *jaidadi*, but the rate varies according to the crop grown.

(5) In one village of thana Keshpur the following extraordinary system was met. Each holding is considered to contain ¼ of its area at a cash rent of Re. 1-8 per bigha. For the remaining ¾ appraisement is made. When the estimated yield reaches 5½ *kuris* per bigha, the landlord gets rent at the rate of 3 *kuris* per bigha. When the yield is less, the produce is divided between the landlord and the tenant in the ratio of 9 : 7."

These abnormal rents are of course sanctioned by ancient custom. The system of *tājā khārāpa* seems extraordinarily fair in theory. The area is mainly one of large and well-known landlords, and land-tenure is simple, seldom more than one grade of tenureholder intervening between the proprietor and the actual cultivator. *Patnis* are prevalent. Relations between

landlords and tenants are on the whole good, though the Settlement Officer cites instances of one landlord who preserves an ancient jamabandi intact and treats his present tenants as *marfatdars*, of another in whose estate the rents are in a hopeless state of confusion of which advantag · is taken by his agents, who wax fat on it, and of a third landlord who, in return for consideration on an organised scale, gave up the fight against rent-free claims.

24. Printing went ahead during the year. At the end of the year the cost-rate per khatian including contract and fixed payments only had decreased to 1 anna 10 pies, and the average outturn for the year was 1,720 khatians per press per month. The average earnings of compositors was Rs. 20-14 per month and the highest earned Rs. 57.

25. Recovery began in December and out of a demand of five lakhs, Rs. 4,15,668 was recovered amicably and Rs. 12,287 by the certificate procedure. Of the remainder about Rs. 17,000 is under certificate, Rs. 29,505 is realisable by instalments and the remainder are small sums due mostly from aboriginals and semi-aboriginals which it is proposed to realise amicably after the winter harvest. Certificates have not been issued for sums under Rs. 10. From these figures the figures for Jhargram at present under recovery have been excluded.

26. One hundred and five commutation cases were tried, but there remains a large number left over from the Contai Settlement to deal with. Rent-settlement enquiries were made in the Pataspur temporarily-settled estate and the appellate orders on the rate-report of the Silda pargana under section 112 were passed just after the expiry of the year. Diara resumption was started on the Rupnarain, Haldi and Rasulpur rivers and along the shores of the Bay of Bengal. The Collector and the District Judge have begun to take over the records.

27. **Rajshahi.**—Mr. W. H. Nelson, I.C.S., was in charge throughout the year assisted by Charge Officers Mr. Donovan, who went on leave towards the end of the year, and Mr. Clough, who joined the Indian Army Reserve of Officers about the same time.

28. The following figures compare programme with performance for the main branches of work :—

	For the year		Up to date.	
	Programme.	Performance.	Programme.	Performance.
Cadastral to preliminary recess.	720	685*	3,400	3,219*
Bujharat	720	983	3,400	3,219*
Attestation	940	860*	2,680	2,572
Objections	940	751	2,480	2,418
Janch	930	750	2,460	2,018
16″ maps	868	560	1,758	1,030
Printing	868	539	1,758	578
Computation and recovery ...	870	270 (computation only).	870	270 (computation only).

* No arrears. Difference is due to an overestimate of area.

In all the earlier stages the actual programme has been completed. The large arrears of *bujharat* of the preceding year have been made up and attestation is actually slightly in advance of the programme as a certain amount of work was done in advance in the villages liable to diluvion. The arrears of objections and janch will be disposed of within the financial year. Printing is in arrears owing to the delay in the construction of buildings and to the small number of presses, compared with the large number of interests found, in use at the outset. These deficiencies have been made good. Maps are sufficiently ahead of printing. The delay in printing accounts for the delay in starting recovery and case-work.

29. The following figures compare estimate and expenditure in the main branches of work.

	Estimated expenditure.	Estimated rate.	Actual expenditure.	Actual rate.	Standard rate.
	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral	70,560	98	63,661	93	115
Khanapuri	23,760	33	27,377	40	39
Initial recess ...	12,960	18	9,510	14	18
Bujharat	64,080	89	1,06,334	108	94
Attestation	59,220	63	95,049	110	66
Objections	22,560	24	12,721	16	27
Janch	19,530	21	16,728	22	20
Maps	50,334	58	6,180	11	8
Printing			34,495	64	54
Recovery	21,750	25	1,612	6	29
Supervision	1,13,219	...	96,655	...	...
Supplies, services and contingencies.	67,600	...	75,124	...	...

The large cost-rate under the head of bujharat of Rs. 108 as compared with the standard rate of Rs. 94 for the year is entirely due to the fact that the five lakhs of plots left over from the previous year averaged 2,000 per square mile against the standard of 1,000. The high cost-rate of attestation is explained by the fact that 540 interests to the square mile were dealt with instead of the standard of 250. The higher rate of printing is also due to the fact that 370 interests to the square mile were dealt with instead of 250; the rate per interest, including the cost of the checking branch, was just under 3 annas. It is anticipated that this rate will be reduced. The excess in supplies and services etc., is due to expenditure on buildings. On the whole, there has been an expenditure up to date, excluding cess, of Rs. 19,19,046 against an estimate of Rs. 19,50,769, whilst if the large number of plots and interests is taken into account, the settlement is undoubtedly working economically. At first sight it would appear that the saving would be more than counterbalanced by the expected expenditure on the arrears, mainly in printing. There is not however at present any real ground for anxiety, as further savings are expected in the diara area.

30. The area taken up for field-work was the fourth block consisting of a long river strip comprising the frontage on the Ganges of the districts of Murshidabad, Rajshahi, Nadia and Pabna. The bulk of the area is alluvial, but behind the new formations there is a strip of varying width of the old river bank. The traverse party had completed the traverse of the "safe" land area the previous year, but in accordance with programme left that of the "unsafe" area for the year under report. The area is of very varying fertility and the chars themselves at all stages from the newly-formed sand to the quasi-permanent char of which every inch is cultivated. There is little winter rice in the area, but autumn rice is largely grown in the chars. Many kinds of pulses are grown, but jute only to a moderate extent. Indigo has been regularly grown in one diara area for the Midnapore Zamindari Company, and there has recently been a great extension of its cultivation owing to the war and the present high price of indigo. The Settlement Officer reports that it is grown on the following system. The raiyats obtain the seed from the company and sow it with mustard. The mustard grows up first and shelters the indigo plant while young and delicate. The raiyats cut the mustard and appropriate it. Then the indigo left in the field is the property of the landlord who does the necessary weeding, cutting and carting himself. The legal knot was cut by the Settlement Officer recording the indigo as belonging to the company. The ordinary survey was easy, but there was always a difficulty in finding the boundaries on the char lands. Village boundaries were also indefinite and resulted in 126 boundary disputes.

31. Attestation was finished of the third block. The principal problem was that of illegal enhancement of rents ; but the tenants are too frightened of their landlords to want to have their rents cut down to the legal amount. In the words of the Settlement Officer they argued—

"If we fight we make the Zamindar angry. He is powerful and unscrupulous, and even if we win we will have to pay in spite of the record. If we compromise we get partial relief with the good will of the Zamindar and it may last."

The result was that the wind was tempered to the shorn lamb and most of the cases were compromised. The Settlement Officer reports that both parties were satisfied and an immense amount of labour and friction was avoided. In the area in the chars in which attestation was done in advance, *utbandi* became the burning question. This is still under consideration.

32. The last item of importance was printing. This was practically the first year as only a little had been done in the previous year. Good progress was made for a first year. The average outturn of each press was 1,288 khatians per month. An extra building was hired during the year for housing ten extra presses. Cess revaluation made good progress during the year. Much preliminary work was done and the revaluation of 637 estates was completed, resulting in an increase of cess from Rs. 11,907 to Rs. 17,719.

33. **Jalpaiguri.**—The operations in Jalpaiguri were brought to a successful termination in February by Mr. B. A. Hollow, Deputy Collector, and the balance of recovery work pending was handed over to the Deputy Commissioner. Rupees 51,438 were collected without certificate and Rs. 16,238 by the certificate procedure during the year. A sum of Rs. 68,336 was left for recovery at the end of the year, of which Rs. 35,398 represented the amount under certificate. The balance was mainly due from the Cooch Behar estate and is being paid by instalments.

34. **Tippera-Noakhali.**—Mr. W. H. Thompson, I.C.S., was in charge throughout the year assisted by three charge officers, Mr. M. H. B. Lethbridge, I.C.S., who subsequently joined the Indian Army Reserve of Officers, Babu Kali Mohan Sen, and Khan Saheb A. K. Kabiruddin Ahmed, Deputy Collectors. The last named officer temporarily reverted to the general line towards the close of the year. The remainder of the superior staff was composed mainly of experienced Assistant Settlement Officers. Owing to the reduction in the general kanungo staff, the Settlement Officer's own staff of kanungos was entirely composed of experienced officers, a large number of whom came from the Mymensingh Settlement. It has seldom fallen to the lot of any Settlement Officer to have such an experienced staff to work with.

35. The following statement compares programme with performance in the main branches of the work :—

Branch.	For the year.		Up to date.	
	Programme.	Performance.	Programme.	Performance.
	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.
(1) Cadastral Survey, *Khanapuri*, Recess and *Bujharat*.	900	833	1,750	1,539
(2) Attestation	850	706	850	706
(3) Objection and *Janch* ...	637	706	637	706

As a matter of fact, the actual programme has been completed, the estimated area for (1) and (2), which it was reported could on account of diluvion and alluvion only be guessed, has turned out to be that given under the head "Performance". Not the least satisfactory feature of this settlement is that *Janch* was completed in advance of the programme under review for the whole area.

36. The following statement compares the original detailed estimate with expenditure for the year :—

BRANCH OF WORK, ETC.	Estimated expenditure.	Estimated rate per square mile.	Actual expenditure.	Actual rate per square mile.	Standard cost-rate.
	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral Survey, *Khanapuri* and Recess.	1,48,500	165	1,36,549	164	162
Bujharat	77,400	86	68,097	82	94
Attestation	56,100	66	42,880	61	66
Objections and *Janch* ...	26,754	42	34,009	48	47
Supervision	1,00,000	...	88,194	...	...
Contingencies, etc. ...	63,230	...	1,02,605	...	...
Miscellaneous items ...	...	...	4,390	...	...
Total ...	4,71,984	...	4,76,724	...	...

The above figures show that in all branches of work due economy has been observed, although both interests and plots were in excess of the normal. In objections and *janch* there is an apparent increase due to the extended use of kanungos in *janch*, the pay for whose services would otherwise have been debited to supervision. The excess under the head "Contingencies", etc., is only apparent, as this contains an item of Rs. 76,399 for buildings which was provided in the previous year's estimate but not spent. Up to date the expenditure on settlement, excluding cess revaluation, is in round numbers seven and three-quarter lakhs against an original estimate of over eight and three-quarter lakhs. The saving is due to the decrease in the area as well as to economical working. At present, therefore, the financial position of this settlement is very satisfactory.

37. The second block of 833 square miles was taken up for survey. This consisted of the remaining thanas of Lakhipur and Begamganj in the district of Noakhali with the two islands of Hatiya and the adjoining chars, and the whole subdivision of Chandpur except thana Matlab Bazar. Several areas were excluded of which a previous satisfactory record and map existed. The area is a very prosperous one. The homesteads are covered with large betelnut trees and cocoanut gardens. These betelnut trees are planted about three feet apart, so that a plot of moderate size may contain 1,500 trees or more. From the produce the owner obtains a profit of about 8 annas a tree if he does all the work himself. The produce is exported partly to Burma and partly to other parts of Bengal. Rice is the main crop but jute is very extensively grown in parts. The Settlement Officer reports that the climate and fertility of the soil are such that a full winter rice-crop can be grown on the same land after the jute or *aus* rice has been taken. Muhammadans form the bulk of the population. The following is the Settlement Officer's description of the area :—

"The Muhammadans are practically all Sunnis. They form the cultivating population and some of them have risen to become howladars, talukdars and zamindars but they are all of the same stock. There are very few old families or families with any pretensions to better blood than the cultivators. With the introduction of jute, the large profit to be made from betelnut, the extreme fertility of the soil in most of the blocks, and the rise in prices of late years, the Muhammadan cultivators are extraordinarily well-to-do. Their life is a very easy one, they have little work to do, no anxieties about their crops which never fail them and no fear of their landlords who are seldom so much stronger than themselves as to be able to oppress them, the climate is never very hot and never cold and there is no malaria. There is always sporadic cholera especially in the drier part of the year and skin diseases are very common, but otherwise the cultivating classes appear to have a clean bill of health. On the whole they are a peaceful people. Their feuds take them at once to court instead of bringing them to blows, not that they have much respect for authority for they have not. They are quite incapable of settling their own disputes by means of arbitrators at the hands of the chief men of the village, for they have none

they can trust to arbitrate. The chief men in the villages are not men who are looked up to on account of their character, age or parentage. Custom does not give any sort of authority to any of them. The most important men in the villages are such because they are richer, cleverer and above all more unscrupulous than the others. If they are followed, it is out of fear and the knowledge what bad enemies they would make. The Muhammadans are outwardly very religious. Maulanas from upcountry as well as local Moulvis get large congregations and make much profit, but I am afraid that to deal honestly with one's neighbour is not a precept which is given or followed. The religious propaganda and the feelings with which the people receive it remind me very much of the history and stories of the 17th century in Europe. The first case of riot with murder which had led to a conviction for some years in Noakhali was one in which the fight was over an attempt to introduce the chanting of prayers in a village mosque where they had been intoned only up to that time."

38. The relations between landlords and tenants are on the whole good. The tenants are strong and it is only in rare cases that the landlord has the upper hand. There is a considerable amount of subinfeudation, though all the tenureholders are not usually middlemen but only raiyats who have, by arrangement with the landlord, promoted themselves to the envied status of the tenureholder. In dealing with the question of status, the Settlement Officer has recorded all such persons as tenureholders in conformity with definite local custom and the intentions of the framers of the Bengal Tenancy Act, who, it appears from the old correspondence on the subject, were well aware what the conditions of these tenures were in Noakhali.

39. Arrangements were made to complete field work in the islands by March; after that date inspection would have been very difficult. Bujharat was practically finished in May. This should be the aim of every settlement. Very useful help was given by the officers and Sub-Inspectors under training.

40. Attestation as a rule went smoothly. There were few rent disputes. Almost all the lands are held under some sort of registered *kabuliyat* or other, so that many disputes could at once be decided according to these deeds. Being, however, very litigious, the people treated the stages of draft publication and of objections with the utmost seriousness and no less than 25 objections to the square mile were brought. The major proportion of these objections related to shares and to possession. In 48 per cent. of them the record required alteration.

41. Final *janch* (scrutiny) was completed in the objection camps. Kanungos checked the entry of the decision of disputes and objections and passed the villages as complete from janch. Cess revaluation was ordered by Government during the year to be done by the Settlement Department and progress was made in it in the attestation and janch camps. Progress was also made in the initial stages of the rent settlement of some large Government Estates under settlement of land revenue.

42. **General.**—The following statement shows the amount of inspection of survey and *khanapuri* in the different district operations :—

	Partal of cadastral survey.			Inspection of khanapuri.
	Number of linear miles of partal in each square mile.			Number of plots per cent. inspected.
	Personal.			
	By whole Staff.	By Officers only.	Independent.	
Midnapore	3·16	·36	·57	·16
Rajshahi	3·66	·23	Not in force	6
Tippera-Noakhali ...	4·46	·31	ditto	7

The inspection was adequate in all settlements. That of survey in Tippera and Noakhali was particularly good. As already noted in previous years, inspection of *khanapuri* is not of great importance in East Bengal as the kanungo afterwards visits every field.

Minor operations.

43. **Burdwan.**—The year commenced with a diffuse programme spread over a scattered area of 29½ square miles comprising 23 estates and the sidelands of the Grand Trunk Road. One small estate with 1½ square mile was added to the programme during the year. Considerable progress was made in case-work, the main feature of these settlements, which was finished in 7 of the estates commenced in 1912 and 1913. By an oversight, no estimate was made for this case-work and therefore the sanctioned estimates have been considerably exceeded and the programme prolonged. Revised estimates have had accordingly to be submitted to Government.

Babu Satamanyu Mukharji, Deputy Collector, was whole-time Assistant Settlement Officer throughout the year except for a short break when Maulvi Ekramuddin and subsequently Babu Kshetra Mohan Mukharji, Sub-Deputy Collector, acted in his place.

44. **Hooghly.**—Five new private estates and one Government estate were taken up for survey and settlement during the year, and it is satisfactory to note that the operations were completed according to the programme before the end of the year. The Assistant Settlement Officer did the field *bujharat* himself as no Kanungo was available at the proper time. The revenue of the Government estate was increased from Rs. 436 to Rs. 478. Recovery of cost on account of the older estates was practically completed. There was an outstanding balance of Rs. 1,949-7-3 only realisable from private parties, of which Rs. 1,817-14-6 were realised. The balance represents a number of small items which it is proposed to write off as irrecoverable. Recoveries were slightly in excess of actual expenditure. A remarkable feature of this settlement is still the large number of compromises under section 109C of the Bengal Tenancy Act by which, under the cloak of rent-disputes, the parties are really avoiding proceedings under section 105. In this small settlement a total rental of Rs. 1,696 was settled under section 109C. It is reported that applications from landlords for survey and settlement are being received in increasing numbers, as there is a popular belief that the district operations will not be taken up according to the programme.

Babu Khitish Chandra Haldar, Sub-Deputy Collector, continued to be in charge of the settlement work in the district in addition to his duties in the general line.

45. **Howrah.**—A small estate of 134 acres (which proved after survey to comprise 187 acres) was taken up at the instance of the proprietor who had purchased it at a revenue sale. The proceedings reached the stage of final office work. There was no whole-time officer in charge, but a Sub-Deputy Collector of the general line was entrusted with the work in addition to his own duties.

46. **24-Parganas.**—The programme comprised eight scattered estates with a total area of 24·16 square miles at different stages of work. The large Government estate of Kamarpole has reached the stage of settlement of rents. The system of field *bujharat* by Kanungo has now been generally introduced. There were some arrears of field *bujharat* and subsequent stages in one estate on account of an application for postponement by the proprietor, which was acceded to. Except for this, the programme has been satisfactorily completed. Final reports in respect of seven estates completed in previous years were received and disposed of during the year.

The operations in the 24-Parganas were placed in charge of a whole-time Deputy Collector, Babu Sudhir Chandra Ghosh, who took charge in November 1915.

47. **Nadia.**—The programme for the year consisted of the balance of case work pending from the previous year in two zamindari estates. The cases under sections 105 and 106 of the Bengal Tenancy Act in the zamindari estates were keenly contested by the parties and a number of these was disposed of during the year.

48. **Murshidabad.**—No new operation was taken up during the year, but work was done in the old pending estates, viz., 3 temporarily-settled

resumed estates, 6 wards' estates and 5 zamindari estates. The operations in the 3 temporarily-settled estates were concluded during the year, with the result that the revenue was increased from Rs. 1,696 to Rs. 2,851-13. The increase is attributed mainly to the unusually low rate of rent, which had been adopted in one estate for the assessment of revenue at the previous settlement. The records of all the villages of the zamindari and wards' estates, except Bali, were either under final publication or ready for final publication when the year closed. There were considerable complications in estate Bali involving *utbandi* claims, claims by a co-sharer landlord to raiyati-holdings purchased by him prior to the amendment of the Bengal Tenancy Act of 1907, and questions of the status of tenants in these lands. Progress was naturally slow, and although the Assistant Settlement Officer was still dealing with objections under section 103A, it is satisfactory to note that he was able to induce the parties to come to a reasonable compromise in most cases. The work of the district was throughout in charge of a special officer, Babu Abinash Chandra Banarji.

49. **Murshidabad (Fatehsingh).**—By Government Notification No. 12239L.R., dated the 15th December 1915, a revisional operation was ordered in estate Fatehsingh of the Nawab Bahadur of Murshidabad, preparatory to a scheme of continuous maintenance of the record and application of the certificate procedure for realisation of arrears of rent. The original record was prepared in the course of the petty settlements of the district in the years 1902 to 1909. The programme for the year comprised the stages of bujharat to objections of the whole of the 44 square miles of the estate. It was, however, found that a traverse survey of 9 square miles of a village, named Hijol, which had been reclaimed from marsh, was necessary, and this was done in addition to the work laid down in the programme. Excepting some small arrears in the disposal of objections, the programme was completed. The work was placed in charge of the Settlement Officer of Rajshahi, who had an experienced staff under him available for employment here. Progress on the whole was very satisfactory and expenditure was kept within the estimate. A scheme for continuous maintenance of the record now being brought up to date is under examination.

50. **Faridpur.**—Under Government orders no new Government or temporarily-settled estates, though ripe for resettlement, were taken up during the year. The programme, therefore, consisted of the completion of the 13 estates, with an area of 22 square miles, which were pending from the previous year. Settlement in 10 of these estates (area 14¾ square miles) was concluded, while as regards the remaining three, one was expunged as it was found that it was not a Government estate; another, a small one, is pending on account of a boundary dispute for which a demarcation case has been started by the Collector. The third, with an area of 7 square miles, is, however, an important estate, in which an attempt is being made to separate the lands of a private estate from those of the estate. The Board did not approve of the separation proceedings so far as they had advanced, and they have to be taken up *de novo* now. The resettlement proceedings in Faridpur are based on the record of the district settlement, which is brought up to date by field *bujharat*. No difficulty was experienced in the process and the estimated cost was not exceeded. In the estate completed, Government revenue was increased from Rs. 12,440 to Rs. 20,552, half of which was due to increase of area and half to fluvial action and rise in prices. Still the average rate is only Rs. 2-2 per acre and the Collector reports that the previous rents were much below the level of the rents in the locality. Babu Brajendra Nath Das Gupta, Sub-Deputy Collector, was in charge of the minor settlements in Faridpur. He, however, ceased to be a whole-time Assistant Settlement Officer from March 1916.

51. **Bakarganj.**—No new estate was taken up during the year for revision of land revenue, and the programme comprised the completion of work in the estates which had been previously taken up. This was accomplished except in two estates, which are awaiting sanction to a partition proceeding, and estate Kalupara which is pending final orders on the confirmation report. The total area finally published during the year was 57 square miles and the Government revenue was increased from Rs. 1,24,179 to Rs. 1,43,606, *i.e.*, by

15·64 per cent. The raiyati rent was however increased by only 10 per cent., of which about one-third was due to increase in area and extension of cultivation. Of the estates of which land revenue was settled, the most important was Tushkhali—a troublesome area dealt with by the Assistant Settlement Officer with considerable tact and judgment. The final report of this settlement has been approved by Government. One private estate—Kachupatra—was taken up during the year at the instance of the proprietors as considerable reclamation had taken place since the completion of the district operations. The Collector also apprehended serious agrarian disturbances. In order to reduce the chances of such disturbances to a minimum, holdings were freely demarcated and a large number of rent-disputes was compromised under section 109B of the Bengal Tenancy Act. Progress was satisfactory and all objections had been disposed of before the year closed. There was a whole-time Assistant Settlement Officer, Babu Ramesh Chandra Sen (Sub-Deputy Collector), till the close of the year, when he was transferred to the Rajshahi settlement, and the special settlement appointment in the district discontinued.

52. Rai Sahib Harakishore Biswas successfully concluded the *diara* operations in Bakarganj entrusted to him and submitted his final report, which has been submitted to the Board of Revenue. The orders of the Board of Revenue confirming the proceedings, which were pending at the close of the previous year, were also received during the year.

53. **Noakhali.**—The minor operations in Noakhali comprised 20 Government and temporarily-settled estates and one private estate (Dandra), all at their final stages. The following statement shows the programme and performance :—

	Programme. Sq. miles.	Performance. Sq. miles.
Janch	67	43·5
Final Records.	114	64·5
Final Publication	114	9

The arrears in the preparation of the final records were mainly due to the large estate (area 37·95 square miles) Dandra, in which work was kept pending till cess revaluation. In several other estates janch and final records were held up by the large number of objections and appeals which were filed by the parties. There were altogether 210 appeals under section 104 G of the Bengal Tenancy Act to be dealt with during the year, of which 204 were disposed of, including 48 returned for retrial. As explained last year, these appeals do not indicate that there was any attempt at high raiyati enhancements. In the 14 estates, of which the rent-roll was confirmed during the year, there was a total increase in the raiyati rent of Rs. 15,701 on a rental of Rs. 71,744, of which Rs. 10,786 was due to increase in the area of holdings and extension of cultivation, while Rs. 210 was allowed as abatement from decrease in area in several cases. The balance of Rs. 5,124 (or 7 per cent.) represents real enhancement in rate for rise in prices, neighbouring rates, etc. There was, however, a considerable reduction in middlemen's profits with the result that land revenue showed an increase from Rs. 39,619 to Rs. 71,933. The minor settlements of Noakhali were throughout the year under the supervision of the Settlement Officer of Tippera-Noakhali. Babu Kali Mohan Sen, Deputy Collector, was in direct charge.

54. **Malda.**—One estate, Mathurapur, Tauzi No. 60, area 9 square miles, was taken up on the application of the proprietor, and the work placed in charge of the Settlement Officer of Rajshahi. Work up to *bujharat* was completed and attestation was postponed till after the Pujas at the request of the proprietor, and because it was more convenient to postpone it. The dispute regarding rents between the proprietor and his tenants will be dealt with at this stage.

55. **General.**—Minor settlement operations were in charge throughout of experienced officers. The system of field *bujharat* has now been introduced in all minor operations, and the result has been eminently satisfactory. The District officers generally took an active interest in the working of the Settlement Department and inspection notes were received from several of them.

PART II.

56. **Curtailment of the programme.**—The most salient feature of the year was the effect of the economies enforced in the Department in consequence of the war. The programme was very considerably curtailed and a large number of men was unavoidably thrown out of employment. The traverse survey of the first block of the districts of Bankura and Jessore had been completed in the previous year and settlement operations should have begun in the year under report according to the programme. Before the year began, it had been decided to drop Bankura, but it was only when all preliminary arrangements including posting of officers were practically complete that the settlement operations in Jessore were postponed. Over 800 surveyors and clerks and 26 kanungos were discharged in Jessore, whilst no appointments could be made from those kanungos who were trained and passed at the close of the previous year. Later on 46 more kanungos were discharged. Efforts are being made to find appointments for the discharged kanungos elsewhere and Government formally undertook to try and find employment for them in the various Departments of Government. At the time of writing, employment, temporary or otherwise, had been obtained by 26 discharged kanungos in the public service and three have been re-employed in the Settlement Department. Difficulty was also experienced in obtaining an adequate supply of paper for the printing presses. About one-third of what the Settlement Officers had indented for was allowed by Government, with the result that the Department was reduced to various shifts to obtain paper either by direct purchase, by lowering the class of paper used, by temporary transfers from one settlement to another, or by postponing their requirements for inclusion in emergent indents in the next financial year. At the time of writing, one Settlement Officer has reported that he has had to close his press owing to the lack of paper.

57. **Survey and Settlement Manual.**—The draft of the Survey and Settlement Manual was submitted to, and is at present under the consideration of, Government. A separate volume containing the technical rules and instructions of the Department was published during the year.

58. **Guide and Glossary to Settlement Records.**—The compilation of a Guide and Glossary to settlement records was completed and submitted to Government.

59. **Final Reports.**—Mr. (now Captain) J. C. Jack's final report on the Faridpur operations was submitted to Government for orders. Mr. B. C. Prance, I.C.S., also finished the final reports on the river strips of Tippera and Pabna dealt with by the Settlement Office of Faridpur. The final report on the diara operations in Bakarganj by Rai Sahib Hara Kishore Biswas was also received and submitted to the Board of Revenue for orders. Of the minor operations, the other noticeable final report was that of the large estate of Tushkhali in Bakarganj. Several reports on small estates were also received from the 24-Parganas and Jessore.

60. **Training class for candidates for Kanungoship.**—There was no training class for candidates for kanungoship as no fresh recruitment was necessary.

61. **Training of Munsifs.**—Eight munsifs reverted during the year to the Judicial Department on the completion of their training in Survey and Settlement. As no new cadastral survey was undertaken in the year, only three new munsifs were deputed by the High Court for training in the beginning of the field season of 1916-17. Two of them have been posted to the Tippera-Noakhali Settlement and the third to the Rajshahi Settlement.

62. **Jurisdiction.**—The boundary between the Narayanganj subdivision of the Dacca district and the Kishoreganj subdivision of the Mymensingh district was defined by a notification issued during the year. Considerable changes in the jurisdiction of police-stations were introduced involving examination of

26 proposals affecting 86 police-stations. The question of procedure relating to changes in the jurisdiction of thanas and police-stations was brought to a head, and a conference was held at Darjeeling for the purpose of defining the principles to be followed. Jurisdiction lists of two thanas. viz., Faridpur and Palong, in Faridpur, two thanas, viz., Kapasia and Raipura, in Dacca, and one thana, viz., Baraigram, in Rajshahi, were published during the year, and they are available for purchase by the public as well as for use in Government offices.

63. **Maintenance of Boundary Marks.**—Appendix X shows that out of a total of 30,842 boundary marks, 16,097 were inspected. These figures exclude the marks placed in the course of the district operations in Faridpur, Jalpaiguri, Dacca, Mymensingh, Midnapore, Rajshahi, Noakhali and Tippera. The mark-registers and maps of Faridpur and Jalpaiguri are under examination preliminary to arrangements for the organisation of regular inspection. The registers and maps of the other six settlements have not yet been made over to the Collectors. The result of inspection was that 418 marks were found damaged and 1,252 were missing. Three hundred and forty-nine marks were restored. There was a fall in the percentage of inspection, viz., to 52 from 60 reported in the previous year; but in Government and temporarily-settled estates 72 per cent. of the marks were inspected. There was no inspection in one district (Pabna), while in Wards' estates only 43 per cent. and in Zamindari estates 33 per cent. of the marks were inspected. Inspection in the case of Zamindari estates in the Burdwan and Presidency Divisions, where the system of inspection through the daffadars and chaukidars is enforced was considerably more adequate than in the other Divisions. Government has already decided to enforce this system in the other Divisions, but formal orders have not yet been issued. Satisfactory action was taken in Government estates in Mymensingh, Chittagong and Bogra. Special measures were adopted by the Collector of Chittagong for the preparation of a list of trijunction maps and their entry on the thana maps. and to organize a regular system of inspection. A good many damaged and missing marks in the Government and temporarily-settled estates of several districts in the Burdwan and Presidency Divisions require to be repaired or restored.

64. **Utilization of settlement records and maps.**—The reports of the local officers indicate, as in previous years, a rapidly growing tendency to utilize the record-of-rights in disputes relating to land in the civil, criminal and revenue courts of the Province. They were also referred to in the preparation of schedules in land acquisition proceedings and in khas mahal matters when necessary. In Bakarganj the number of applications for copies of records has considerably increased during the year. This was mainly due to cess revaluation operations in the district in which the returns filed by the parties were prepared with reference to the settlement records. Partition proceedings were based on settlement records in districts where they were available. The police officers freely consulted them in the course of their enquiries, and the magistrates trying cases appreciated the presumptive value attached to such records. The description of lands by their survey numbers was insisted on generally in documents presented for registration in areas possessing a record-of-rights.

Appendix XI shows that no less than 7,353 copies of village maps and 753 copies of thana maps prepared in the course of settlement proceedings were sold by the Collectors. Five thousand and twenty-one copies of thana maps (including Chandra's maps) were issued by the Collectors on public service, and 753 copies were sold to the public. The Collector of Chittagong submitted large indents for replenishing his stock of village maps.

65. **Diara proceedings.**—Altogether 40 proceedings were dealt with during the year. Fifteen cases were disposed of immediately after the close of the year. Final orders on 17 other cases were passed during the year, leaving a balance of 8.

A number of civil suits was instituted in Bakarganj to test, as was to be expected, the legality of the resumption proceedings in that district. The cases are in the preliminary stages.

66. **Judicial work of the Director.**—Eight cases of confirmation of rent-roll were pending from the previous year, while 155 cases were received during the year. They were all disposed of except one. Besides this, the preliminary rate report of pargana Silda, which is being dealt with under section 112 of the Bengal Tenancy Act, was also examined and disposed of. An unusually large number of appeals under section 104G(*1*) of the Act came up during the year, mainly from Noakhali and pargana Silda in Midnapore. Thirty-eight were pending from the previous year and 649 were received during the year. Of these, the orders in 490 cases (including 458 relating to Silda) were modified; in 12 cases the appeals were allowed, in 51 the cases were remanded and in 134 the appeals were dismissed. The Silda cases were disposed of immediately after the close of the year.

67. **Training of Junior Officers.**—The training camp for junior officers, which was opened at Ghoramora near Chandpur in the district of Tippera under the Settlement Officer of Tippera-Noakhali, was attended by 6 civilians, 6 Deputy Collectors, 20 Sub-Deputy Collectors, 4 Assistant Superintendents of Police and 2 wards of the Court of Wards. The training was on the usual lines. Mr. W. H. Thompson is to be congratulated on the success attending the first training camp of which he has had charge.

Twenty-five Sub-Inspectors of Police received training in Survey and Settlement work in Rajshahi and twenty-five in Tippera and Noakhali during the year. The result has been satisfactory and was appreciated by the Inspector-General of Police.

68. **Promotions and prospects.**—During the year under report two Sub-Deputy Collectors were promoted from the Settlement Department to the Provincial Executive Service and three kanungos were appointed as Sub-Deputy Collectors. Maulvi Ataur Rahman received the title of Khan Bahadur and Maulvi Abdul Khair Kabiruddin Ahmed that of Khan Sahib during the year.

69. **Tours.**—All the major operations where work was in full swing were visited at least twice. Faridpur and Jalpaiguri closed at the end of February and were visited only once. Out of the ten districts where minor operations were being conducted, two were visited thrice, six were visited twice and two once, during the year under report. Altogether 107 days were spent on tour.

70. **Settlement Staff.**—The Settlement Staff in the Province consisted of 11 Civilians, 22 Deputy Collectors, 12 Munsifs, 45 Sub-Deputy Collectors and 224 Kanungos including Revenue Officers besides one officer of the Survey of India Department.

71. Mr. Sachse has drawn together the threads of his vast charge and has been energetically bringing the operations towards a conclusion. Mr. Jameson conducted the operations in Midnapore successfully and is also face to face with the task of organizing these operations towards a conclusion. Mr. Nelson has had a troublesome task to deal with in the scattered nature of his operations and the importance of the interests involved, which he has dealt with quietly and sensibly. Mr. Ascoli is to be congratulated on having brought the operations in Dacca to such a state that the necessity for his retention as Settlement Officer was no longer warranted. Mr. Prance brought the Faridpur Settlement to a successful conclusion. The conclusion of a settlement is a laborious and somewhat uninteresting business, and the Department owes a debt of gratitude to Mr. Prance for having undertaken it at some pecuniary loss to himself. In Tippera and Noakhali the operations under Mr. Thompson are being conducted so well that the map and record promises to be one of the best, if not the best, the Department has produced. At the commencement of the year the Department lost the valuable services of Mr. Milligan, who had been at the helm of the Jalpaiguri Settlement throughout its course. The civilian charge officers Messrs. Davies, Donovon, Clough, Lethbridge and Fawcus all did good work. Mr. Davies had been longer than most civilian charge officers

in the Department, and his departure is a material loss to it. Amongst other officers who did good work the following may be mentioned :—

Deputy Collectors.

1. Babu Kali Mohan Sen.
2. Maulvi Ataur Rahaman, Khan Bahadur.
3. Babu Bijay Bihari Mukharji.
4. Maulvi Shams-ud-din Muhammad Abdul Aziz.
5. Khan Sahib A. K. Kabiruddin Ahmad.
6. Mr. B. A. Hollow.
7. Babu Satish Chandra Upadhyay.
8. „ Karali Charan Gangali.
9. Mr. J. R. Johnson.
10. Babu Satamanyu Mukharji.
11. „ Kalipada Maitra.
10. „ Sudhir Chandra Ghosh.

Munsifs.

1. Babu Pranendra Narayan Choudhuri.
2. Maulvi Paziruddin Ahmad.

Technical Adviser.

1. I. Newton.
2. Babu Lal Mohan Basu.

Sub-Deputy Collectors.

1. Babu Kasiswar Chakrabatti.
2. „ Abinash Chandra Banarji.
3. „ Jogesh Chandra Mitra.
4. „ Giris Chandra Das.
5. „ Jamini Mohan Ghosh.
6. „ Chinta Haran Das Gupta.
7. Babu Ramesh Chandra Sen.
8. „ Amulya Kumar Guha.
9. „ Harendra Nath Mazumdar.
10. „ Bireswar Sanyal.
11. „ Probhat Chandra Banarji.

Babu Mahendra Nath Gupta, Deputy Collector, worked most assiduously throughout the year and did valuable work as Personal Assistant.

72. **Conclusion.**—In conclusion I desire to convey the thanks of the Department to the Director of Surveys for the assistance which he has given this Department throughout the year. I also take this opportunity of thanking the Commissioners and the District Officers in whose charge settlements have been proceeding for the help which they have always given the Department.

I have the honour to be,

SIR,

Your most obedient servant,

M. C. McALPIN,

Director of Land Records, Bengal.

APPENDICES.

[*N.B.*—Figures in these Appendices which do not agree with those in the last year's Report are revised figures.]

APPENDIX I.

Progress of Survey and the preparation of a record-of-rights in the Province.

NAME OF DISTRICT.	Area (excluding large rivers).	Reserved forests.		Unsettled waste at the disposal of Government.		Settled area to which the Bengal Tenancy Act has not been extended.		Settled area to which the Bengal Tenancy Act has been extended.			
		Area.	Scale and date of survey.	Area.	Scale and date of survey.	Area.	Date of cadastral survey under other Acts.	Total.	Area in which a record-of-rights—		
									Has been finally published.	Is in course of preparation.	Remains to be prepared.
1	2	3	4	5	6	7	8	9	10	11	12
Burdwan ...	2,678	...	...	...	...	...	.....	2,678	94	5	2,579
Birbhum ...	1,740	...	...	...	...	...	.....	1,740	209	...	1 531
Bankura ...	2,621	...	...	...	...	...	.....	2,621	51	4	2,566
Midnapore ...	5,407	...	...	...	...	...	.....	5,407	1,304	3,612	491
Hooghly ...	1,213	...	...	...	...	...	.....	1,213	53	...	1,160
Howrah ...	510	...	...	...	...	...	.....	510	...	·25	509·75
24-Parganas ...	4,844	1,768	...	1,191	...	...	.....	1,895	125	33	1,737
Calcutta ...	8	...	...	...	...	8	1911 in respect of 4 square miles.	...	...	...	...
Nadia	2,725	...	...	...	...	...	.....	*2,725	52	...	2,673
Murshidabad ...	(b) 2,143	...	...	...	...	...	.....	2,143	145	24*	1,974
Jessore ...	2,925	...	...	...	...	...	.....	2,925	82	...	2,843
Khulna ...	4,765	2,089	.....	...	...	...	.....	2,676	246	5	2,425
Dacca	2,760	..	...	...	...	...	.....	2,760	1,810	1,090†	...
Mymensingh ...	6,356	...	...	...	...	...	.....	6,356	4,286	2,146‡	...
Faridpur ...	2,461	...	...	...	...	...	.....	2,461	2,696†	(c) 7	(d) 10
Bakarganj ...	3,490	131	16″ = 1 mile, district operations, 1905-06.	516	16″ = 1 mile, district operations 1905-06.	...	.....	2,427	2,427	...	...
Chittagong ...	2,492	564	4″ = 1 mile district operations, 1888-89.	486	16″ = 1 mile, 1888-89.	...	.....	1,442	1,374	...	68
Noakhali ...	1,649	...	...	...	...	...	.....	1,649	567	825	257
Tippera ...	2,499	...	...	...	...	...	.....	2,499	991§	1,539	969
Rajshahi (a) ...	3,846	...	...	...	...	...	.....	3,846	68	3,219	559
Dinajpur ...	4,132	...	...	...	...	...	.....	4,132	517	...	3,615
Jalpaiguri ...	2,924	505	4″ = 1 mile, 1907-08.	...	...	382	4″ = 1 mile, 1907-10.	2,037	2,037	...	...
Rangpur ...	4,090	...	...	...	...	...	.....	4,090	143	...	3,947
Bogra	1,359	...	...	...	...	...	.....	1,359	53	...	1,306
Pabna	1,839	...	...	...	...	...	.....	1,839	68§	...	1,648
Malda	1,832	...	...	...	...	...	.....	1,832	88	9	1,735
Darjeeling ...	1,164	436	4″ = 1 mile, 1905.	22	...	706	Kalimpong 1902-03, Silguri 1897-98, West Tista 1906-07, Act V of 1875.	...	...	...	...
Total ...	74,462	5,483	...	2,215	...	1,512	... ...	65,252	19,486	12,518·25	34,612·75

(a) Including diara strips of Pabna, Nadia and Murshidabad.
* Excluding 44 square miles in Pargana Fatch Singh.
† Includes diara strips in Tippera and Pabna.
‡ Includes diara strips in Rangpur, Pabna, Bogra and Tippera.
§ *See* Faridpur for River strips done from there.
(b) Revised figures.
(c) Revisional.
(d) Area transferred from Jessore.

APPENDIX II.

General progress in Survey and Settlement work done during the year ending 30th September 1916.

District Operations.

Branch of work.	Units of report.	Dacca					Mymensingh.					Midnapore.	
		Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.	Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.	Date of inception of operations, i.e., of commencement of traverse survey.	Estimated area in square miles under settlement.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Traverse Survey (under Settlement Officer) ..	Square miles	1st Octo. 1909	3,157(a)	...	...	...	1,907	6,631	...	...	...	1910	4,133
Cadastral Survey	Ditto	...	...	...	...	3,157	...	...	...	...	6,432	...	...
Khanapuri	Ditto	...	...	...	...	3,157	...	...	...	...	6,432	...	...
	Plots	...	...	...	...	3,389,316	...	...	...	...	5,658,726	...	...
Preliminary Office Work	Square miles	...	...	...	...	3,130(b)	...	...	...	...	6,432	...	...
Bujharat	Ditto	...	...	...	...	3,130	...	...	68	68	6,432	...	...
	Plots	...	...	...	...	3,419,917	...	...	67,722	90,707	5,699,535	...	...
	Interests	...	...	...	...	1,461,046	...	...	17,000	39,245	1,703,921	...	...
Attestation	Square miles	...	...	...	...	3,130	...	...	1,093	1,068	6,448	...	...
	Interests	...	...	...	...	1,423,104	...	...	320,419	304,419	1,693,47 2	...	...
Draft Publication	Square miles	...	...	...	...	3,130	...	...	1,205	1,177	6,395	...	...
Objection under section 103A	Ditto	...	...	...	...	3,130	...	...	1,100	1,246	6,269	...	...
	Cases	...	...	...	...	43,417	...	...	10,817	10,467	66,470	...	...
Final Office Work— Jauch	Square miles	...	...	...	...	3,130	...	...	914	1,300	6,217	...	...
Statistics	Ditto	...	...	1,335	826	3,130	...	...	1,064	697	5,272	...	...
Preparation of 16" maps	Ditto	...	...	1,035	1,361	3,130	...	...	1,200	1,010	4,875	...	...
Topographical maps	Ditto	...	...	...	...	...	...	...	1,759	1,500	2,300	...	...
Preparation of final records	Ditto	...	...	1,010	1,930	3,030	...	...	1,030	1,474	5,369	...	...
	Interests	...	...	500,000	712,862	1,379,778	...	...	2,70,000	388,958	1,218,840	...	...
Final publication	Square miles	...	...	1,500	1,298	1,810	...	...	890	890	4,286	...	...
Recovery of costs	Ditto	...	...	1,500	1,231	1,796	...	...	1,227	1,140	4,203	...	...
	Amount Rs.— (a) Voluntary	...	...	Rs. 8,00,000	Rs. 9,25,125	Rs. 12,68,992	...	...	Rs. 6,90,000	Rs. 7,08,640	Rs. 17,80,505	...	...
	(b) By certificates	...	...		45,110	48,563	...	...	...	...	2,403	...	...
Case work under section 108A	Cases	...	...	...	199	269	...	...	314	177	1,499	...	...
,, ,, ,, 105	Do.	...	...	...	...	...	...	...	...	...	...	...	...
	Tenancies	...	...	...	6,559	7,090	...	...	81,648	21,354	51,249	...	...
,, ,, ,, 106	Cases	...	...	...	171	194	...	...	3,104	541	1,587	...	...

NOTE.—Actual programme for the year is entered and not the original programme. (a) Actual area found after survey. (b) Difference in area between cadastral and Bujharat is due to the areas transferred to Mymensingh.

General Progress in Survey and Settlement work done during the year ending 30th September 1916.

District Operations—*concluded.*

Branch of work.	Units of reports.	Midnapore—*concluded.*			Rajshahi.					Tippera—Noakhali.				
		Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.	Date of inception or operations, *i.e.*, of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.	Date of inception of operations, *i.e.*, of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done— In the year under report.	Work done— Up to date.
		15	16	17	18	19	20	21	22	23	24	25	26	27
Traverse Survey (under Settlement Officer) ...	Square miles	...	...	...	1,910	3,219*	...	...	...	1913	4,148	...	23	23
Cadastral Survey	Ditto	324	293	4,136	...	...	720	685	3,219	...	...	900	833	1,539
Khanapuri	Ditto	324	293	4,136	...	...	720	685	3,219	...	...	900	833	1,539
	Plots	324,000	558,816	5,953,417	...	...	872,497	700,500	4,677,245	...	...	900,000	1,101,737	2,187,589
Preliminary Office Work	Square miles	324	293	4,136‡	...	...	685	685	3,219	...	...	900	833	1,539
Bujharat	Ditto	968	998	3,873	...	...	1,022	983	3,219	...	...	900	833	1,539
	Plots	1,790,887	1,826,004	5,444,196	..	...*	1,323,324	1,225,775	4,813,069	...	...	900,000	1,112,462	2,221,760
	Interests	592,808	621,067	1,581,066	...	...	362,621	462,331	1,398,919	...	...	252,831	252,831	542,398
Attestation	Square miles	968	998	3,873	...	...	826	860	2,572	...	...	769	706	706
	Interests	592,808	621,067	1,581,066	...	...	434,084	464,907	1,119,121	...	...	256,227	256,227	256,227
Draft publication	Square miles	968	987	3,864	...	...	826	826	2,533	...	...	769	706	706
Objection under section 103A	Ditto	968	1,144	3,863	...	...	871	751	2,418	...	...	706	706	706
	Cases	30,647	30,647	77,955	...	...	13,975	11,925	39,288	...	...	17,436	17,436	17,436
Final Office Work—														
Janch	Square miles	1,680	1,036	3,157	...	...	1,228	750	2,018‡	...	...	258	706	706
Statistics	Ditto	1,549	1,226	2,489‡	...	...	1,670	1,102	1,102‡	...	...	...	...	...
Preparation of 16″ maps	Ditto	1,549	1,533	2,464	...	...	921	560	1,030‡	...	...	...	...	...
Topographical maps	Ditto	...	...	...	...	...		560	1,342	...	...	...	...	...
Preparation of final records	Ditto	1,230	1,359	2,741	...	...	1,407†	539	578	...	...	...	...	...
	Interests	458,000	453,580	770,377	...	...	495,950	172,928	183,167	...	...	...	...	...
Final publication	Square miles	1,793	1,235	1,457	...	...	...	...	...	...	...	...	...	...
Recovery of costs	Ditto	1,793	1,235	1,235	...	...	...	...	...	...	...	...	...	...
	Amount Rs.— (*a*) Voluntary	...	Rs. 4,33,002	Rs. 4,33,002	...	...	...	...	...	...	...	...	...	...
	(*b*) By certificates	...	Rs. 12,288	Rs. 12,288	...	...	...	...	...	...	...	...	...	...
Case work under section 108A	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...
,, ,, ,, 105	Do.	...	...	...	...	...	...	...	...	...	...	...	...	...
	Tenancies	...	...	...	...	...	...	...	...	...	...	...	...	...
,, ,, ,, 106	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...

NOTE.—Actual programme for the year is entered and not the original programme. | * Including diara strips of Pabna, Nadia and Murshidabad. | † Including arrears of last year. | ‡ Revised figures.

General Progress in Survey and Settlement work done during the year ending the 30th September 1916.

Minor Operations.

Branch of work.	Units of reports.	Burdwan.			Bankura.			Hooghly.			Howrah.			24-Parganas.			Nadia.		
		Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.
1	2	3	4		6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
				Rs.			Rs.			Rs.	Acres.	Acres.	Rs.			Rs.			Rs.
Traverse Survey (under Settlement Officer).	Square miles ...	1·55	1·55	178	...	...		1·20	1·20		134	187		8·70	8·70		...	...	...
Cadastral survey	Ditto ...	1·55	1·55	563	...	...		1·20	1·20		134	187		8·70	8·70		...	...	...
Khanapuri	Ditto ...	1·55	1·55	624	...	...		1·20	1·20	223	134	187		8·70	8·70		...	...	...
	Plots	3,516	3,516		...	...		2,487	2,487		825	755		12,076	12,076		...	...	...
Preliminary Office Work ...	Square miles ...	1·55	1·55	133	...	...		1·20	1·20		134	187		13·90	13·90		...	...	...
Bujharat	Ditto ...	1·95	1·95	644	4	1·14		2·20	2·20		134	187		13·90	8·32		...	...	...
	Plots	4,075	4,075		4,860	841		6,252	6,252		825	755	285	23,360	14,846		...	...	...
	Interests	1,020	1,020		1,100	191		733	1,121		276	276		3,500	4,320		...	...	...
Attestation	Square miles ...	2·53	2·53	1,567	4	...		2·20	2·20	699	134	187		13·23	13·23		...	...	...
	Interests	1,122	1,122					733	1,121		276	276		3,310	5,016		...	...	...
Draft publication	Square miles ...	5·91	5·91	308	4	...	727	2·20	2·20		134	187		12·35	12·35		...	...	...
Objection under section 103 A	Ditto ...	7·99	6·44	617	1	...		2·20	2·20	170	134	187		12·35	8·82		...	...	...
	Cases	...	322					2·78	2·78		57	57		93	89		...	...	...
Final Office Work—																			
Jamch	Square miles ...	11·10	11·10	2,126	4			2·20	2·20		...	...	...	1·58	·45	10,374	...	...	...
Statistics	Ditto ...	...	...	...	4			2·20	2·20		...	...	...	·05	·05		...	...	...
Preparation of 16″ maps ...	Ditto ...	15·40	14·35	553	4			2·20	2·20	430	...	...	...	1·58	·45		...	...	...
Topographical maps... ...	Ditto ...	...	...	...	4			...	...		...	...	...	...	..		...	...	...
Preparation of final records	Ditto ...	9·80	9·80	443	4	Work stopped.		2·20	2·20		...	...	...	·23	·45		...	...	...
	Interests	3,670	3,618					1,175	1,175		...	...	...	57	177		...	...	...
Final publication	Square miles ...	12·15	9·48	382	...			2·20	2·20		...	...	...	·23	·45		..	...	...
Recovery of costs	Ditto ...	...	...	...	4			Amount 2,371	Amount 1,844		...	...	...	...	...		...	...	...
Case work under section 108 A...	Cases	6	6		...	...	...	2	2		...	...	...	...	...		288	17	90
Ditto ditto 105 ...	Do	3,307	1,505	5,668	...	...	...	2	2		...	...	...	29	5		35	7	
Ditto ditto 106 ...	Do.	749	277		...	...	...	...	...	22	...	...	...	40	3		...	...	...
Ditto ditto 112 ...	Do.	...	...		...	...	...	...	...		...	...	...	...	...		...	...	...
Ditto ditto 104 K(1)	Do.	28	28	152	...	...	...	...	...		...	...	...	...	...		...	...	...
Ditto ditto 109 (O)	Do.	...	...	...	...	...	...	...	...		...	...	...	...	...		...	...	...
Revision in temporarily-settled estates—																			
(*a*) Draft publication section 103 A.	Square miles ...	...	...	...	...	...	...	..	62		...	...	...	...	...		...	...	...
(*b*) Final publication	Ditto ...	...	...	...	...	...	...	11	·11		...	...	...	12·78	12·78		...	...	...
Total cost ...	Amount Rs. ...	...	...	13,858	...	...	...			1,544	...	...	285	...	...	10,374	...	...	90

APPENDIX II—*concluded.*

General Progress in Survey and Settlement work done during the year ending 30th September 1916.

Minor Operations—*concluded.*

Branch of work.	Units of reports.	Murshidabad.			Murshidabad (Fatehsingh Pargana).			Faridpur.			Bakarganj.			Noakhali (Minor operations).			Malda (Matturapur Estate).		
		Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.
		21	22	23	24	25	26	27	28	29	30	31	32	33	4	35	36	37	38
				Rs.			Rs.			Rs.			Rs.			Rs.			Rs.
Traverse Survey (under Settlement Officer.	Square miles ...	...	...	...	...	...	...	...	...	...	9	9	620	...	...	...	...	...	...
Cadastral Survey	Ditto ...	...	...	...	...	9	805	...	...	...	9	9	1,277	...	...	...	8	9	840
Khanapuri	Ditto ...	...	...	...	...	9	156	...	...	...	9	9	425	...	...	...	8	9	340
	Plots	...	...	69		3,666					7,005	7,005		...	...	...	10,000	5,736	
Preliminary Office Work ...	Square miles ...	7·05	7·05	475	...	9	644	...	...	...	9	9	44	...	...	...	8	9	31
Bujharat	Ditto ...	8·13	8·13	1,955	44	44	10,123	4	3	398	9	9	1,148	...	...	...	8	9	912
	Plots	10,933	10,933		78,000	82,719		4,000	3,124		7,005	7,005					10,000	6,025	
	Interests	5,368	5,368		30,611	24,975		1,250	970		946	946					2,000	2,326	
Attestation	Square miles ...	10·79	10·79	1,235	44	44	3,052	5	5	450	9·25	9·25	862	...	...	...	8	...	...
	Interests	6,490	6,490		30,611	24,975		2,442	2,442		1,071	1,071					2,000	...	
Draft publication	Square miles ...	12·9	12·9	36	44	44	...	5	5	...	9·25	9·25	102	...	...	...	...	...	...
Objection under section 103A	Ditto ...	18·94	17·62	1,996	44	7	63	...	...	55	9·25	9·25	258	...	...	...	...	...	...
	Cases				375	50		42	13		7	7							
Final Office Work—																			
Jamch	Square miles ...	38·58	29·88	2,454	4	4	91	16	15·50	200	23	23	843	67	43·5	762	...	...	...
Statistics	Ditto ...	38·58	29·88	188	...	...	...	...	...	...	13·50	4·75	20	60	3	370	...	...	...
Preparation of 16" maps ...	Ditto ...	38·58	29·88	1,193	...	...	...	21	18	75	25	24·50	478	104	8·5	661	...	...	...
Topographical maps	Ditto ...																		
Preparation of final records...	Ditto ...	29·65	29·65	1,714	...	...	...	22	15	100	30	30	3,396	114	64·5	869	...	...	...
	Interests	13,325	13,325					6,770	4,975		7,390	7,390		39,316	29,270		...	...	...
Final publication	Square miles ...	39·84	13·57	13	...	...	...	21·50	14	25	57·33	57·33	53	114	9	31	...	...	...
Recovery of costs	Ditto ...	...	...	67	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Case work under section 108A ...	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ditto 105 ...	Do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ditto 106 ...	Do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ditto 112 ...	Do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ditto 104E (1)	Do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ditto 109(c)	Do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Revision in temporary-settled estates—																			
(a) Draft publication section 103A.	Square miles ...	·57	·57	67	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(b) Final publication ...	Ditto ...	...	...	...	...	...	...	8	7·50	1,216	...	...	...	77	9	801	...	...	...
Total cost ...	Amount Rs. ...	...	...	11,963	...	...	14,934*	...	...	2,519†	...	...	12,676	...	...	3,494	...	...	‡ 2,123

* Excluding Rs. 3,319 for supervision and contingencies.

† Excluding Rs. 305 for supplies, services and contingencies.

‡ Excluding Rs. 625, for supervision and contingencies.

APPENDIX III.

Return of Disputes and Inspections during the year ending the 30th September 1916.

District.	Area in square miles cadastrally surveyed during the season.	Personal partal in linear miles.			Independent partal by linear miles.	Total number of plots khanapuried.	Number of plots tested			Number of boundary disputes decided.	Number of internal disputes decided.	
		By Gazetted Officers.	By Kanungos and Head Inspectors.	By Inspectors.			By Gazetted Officers.	By Kanungos and Head Inspectors.	By Inspectors.		During Khanapuri and Bujharat.	During attestation.
1	2	3			4	5	6			7	8	
Bardwan ...	1·55	2·33	...	...	1·62	3,516	62	...	...	...	20	667
Midnapore ...	293	107·61	320·34	496·95	167·68	563,816	5,591	26,952	58,750	47	4,651	29,228
Hooghly ...	1·20	1·50	...	1·50	1·50	2,487	250	...	375	...	50	199
Howrah	·25	114·14	...	...	124	755	167	755	...	...	2	8
24-Parganas ...	8·70	4·6	...	20	3·6	12,076	1,408	619	3,114	...	21	1
Murshidabad (Fatehsingh pargana).	9	...	18	...	...	3,666	...	818	...	4	2	243
Mymensingh ...	...	...	...	...	...	...	...	...	...	184	230	7,000
Bakarganj ...	8·75	14	4	...	...	7,005	1,400	308	...	...	63	73
Tippera-Noakhali (District Operations).	833	364	3,454	...	...	1,101,732	...	78,616	...	36	5,072	3,189
Rajshahi (including Diara strips of Pabna, Nadia and Murshidabad).	681	154	2,386	...	...	700,500	4,003	37,091	...	126	2,340	16,784
Malda	9	...	32	...	...	5,736	...	187	...	...	54	...

APPENDIX IV.

Progress in revision of Land Revenue during the year ending 30th September 1916.

District.	Number of estates under revision.	Total area in acres.	Area in which rent-roll has been draft published.		Objections under Section 104E.		Area in which rent-roll confirmed under section 104E.	Effect of the rental of raiyats.									Area in which record-of-rights finally published.	Number of estates in which revision of land revenue completed.	Financial result.		Percentage of increase of rent.	Percentage of increase of revenue.
			In the year under report.	Up to the end of the year under report.	Pending for decision.	Decided		Old rent.	New rent.	Amount of increase due to—					Amount of decrease due to—				Old revenue.	New revenue.		
										Increase in size.	Extension of cultivation.	Increased fertility of soil.	Rise in prices.	Neighbouring rates.	Decrease in area.	Deterioration of the soil.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
								Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.			Rs.	Rs.		
Burdwan	1	1,699·49	1,682·29	1,682·29	...	28	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hooghly	1	70·94	70·94	70·94	...	...	70·94	436	478	...	...	16	22	...	...	...	70·94	1	436	478	10	10
Murshidabad	3	1,396·87	365·26	1,031·61	...	...	1,396·87	2,588	4,073	...	...	...	...	1,532	47	...	1,396·87	3	1,696	2,862	157·34	168·17
Dacca (including Tippera riverian area).	47	11·83 square miles.	11·83 square miles.	116·83 square miles.	...	1	11 square miles.	14,642	24,812	922	917	1,730	3,636	...	...	...	7·50 square miles.	45	10,526	17,868	49·30	69·65
Mymensingh	82	33,920	1,920	...	2	409	31,360	30,615	45,040	...	2,456	...	610	11,359	...	...	16 square miles.	16	27,996	40,970	47	46
Bakarganj	14	36,324·47	3,352·58	3,352·58	...	42	31,050·41	1,29,093	1,49,653	2,496	4,638	...	...	11,600	...	...	32,947·05	11	1,21,179	1,43,603	16	15·64
Faridpur	13	13,874·12	13,874·12	13,465·04	...	44	9,445·54	12,367	20,622	3,253	...	4,113	889	...	...	...	9,445·54	10	42,440	30,552	66	66
Noakhali	19	50,843	640	50,203	...	...	38,401	71,744	87,445	2,581	8,206	...	3,100	2,025	210	...	5,823·69	16	39,649	21,933	22	82

APPENDIX V.

Return of Rent-settlement work in areas not under revision of Land Revenue during the year ending 30th September 1916.

DISTRICT.	Commutation under section 40.			Proceedings under section 109(c) (West Bengal Districts only).				Class of tenants.	PROCEEDINGS UNDER SECTION 105.										
													Analysis of variation in the case of raiyats.						
													Amount of increase due to—					Amount of decrease due to—	
	Number of cases dealt with.	Commutation allowed.	Commutation refused.	Number of tenants.	Rent according to landlord.	Rent legally payable.	Rent settled by compromise.		Number of tenants for whom a fair rent has been determined.	Former rent.	New rent.	Difference, per cent. + or −.	Increase in area, section 52(a).	Prevailing rates, section 30(a).	Rise in prices, section 30(b).	Landlord's improvement, section 30(c).	Fluvial action, section 30(d).	Decrease in area, section 52(b).	Permanent deterioration of soil, section 38 (1)(a).
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
					Rs.	Rs.	Rs.			Rs.	Rs.			Rs.	Rs.				
Burdwan	...	...	...	...	...	...	...	.....	1,354	6,719	8,342	+ 23	27	...	1,536	...	...	...	...
Hooghly	...	...	...	62	1,579	1,572	1,696	.....	...	...	...	...	...	...	...	...	...	...	...
Midnapore	106	99	7	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...
24-Parganas	...	...	...	...	...	...	...	Raiyats	17	297	343	+ 15·82	17	...	29	...	...	...	...
Dacca	...	...	...	...	...	...	...	Raiyats	5,783	28,955	34,989	+ 21	2,964	312	2,758	...	...	1	...
								Tenure-holders	1	...	6	...	...	...	...	...	...	...	...
Mymensingh	1	1	...	...	...	...	...	Raiyats	24,354	3,28,419	3,95,646	+ 20	50,296	...	16,934	...	...	...	...
Rajshahi	336	90	146	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...

APPENDIX VI.

Results of Appeals during the year ending 30th September 1916.

NAME OF ESTATE OR TRACT UNDER SETTLEMENT.	Nature of case.	Pending from previous year.	Instituted during the year.	Disposed of during the year.	Balance pending.	Upheld.	Modified.	Revised.	Cases returned for retrial.
1	2	3	4	5	6	7	8	9	10
Hooghly	Section 105 ...	23	...	...	23	...	...	...	...
	Do. 106 ...	4	...	...	4	...	...	...	...
	Do. 108 ...	...	...	...	...	...	...	...	...
Midnapore	Boundary dispute	2	13	14	1	5	1	8	...
	Fines	...	5	5	...	5	...	...	...
	Revision	...	35	34	1	31	3	...	...
24-Parganas	Section 105 ...	16	4	...	20	...	...	...	...
	Do. 108 ...	13	...	...	13	...	...	...	...
Nadia	Section 105 ...	54*	...	...	54	...	...	...	54
Murshidabad (Minor operations).	Boundary disputes	...	1	1	...	...	1	...	...
Dacca	Commutation cases under section 40.	...	57	57	...	57	...	...	...
	Demarcation cases	...	1	1	...	1	...	...	...
	Section 105 ...	...	3	1	2	...	1	...	...
	Do. 108 ...	...	2	...	2	...	...	...	...
	Certificate cases ...	...	3	2	1	2	...	...	...
	Cess cases ...	...	2	2	...	1	...	1	...
Mymensingh	Section 105 ...	52	48	18	82	5	8	...	5
	Do. 108 ...	55	55	55	55	30	...	18	7
Tippera, Noakhali (District operations).	Boundary dispute	1	7	8	...	5	3	...	...
Rajshahi	Fine cases ...	...	8	8	...	2	5	1	...
	Boundary dispute	...	58	50	8	43	3	4	...
Noakhali (Minor operations) ...	Section 104G ...	141	69	204	6	137	2	27	48

* Not shown in the previous year's report.

APPENDIX VII.

Nature and number of Holdings recorded in each Settlement for which final statistics have been completed during the year ending 30th September 1916.

DISTRICT.	Name of each estate, tract, etc., under settlement.	Area for which final statistics were completed during the year.	NUMBER OF KHATIANS RECORDED IN THE NAME OF, OR FOR—														
			Proprietor.		Rent-free tenure-holders.		Tenure-holders (other than rent-free).	Raiyats at fixed rates or fixed rents.	Rent-free raiyats.		Settled and occupancy raiyats.	Non-occupancy raiyats.	Occupants (of non-agricultural holdings).	Under-raiyats.	Unoccupied lands (including area outside the records).	Lands occupied for public purposes.	Total.
			As private lands.	Not as private lands.	Service.	Others.			Service.	Others.							
1	2	3	4	5	6		7	8	9		10	11	12	13	14	15	16
		Square miles.															
Burdwan ...	Private estates	9	7	9	...	...	44	70	69	808	2,575	35	90	455	Not reported	2	...
Hooghly ...	Government estate.	70·94	...	1	...	...	...	1	...	...	21	...	...	4	...	1	28
	Private estates	1,306·86	...	22	2	276	9	57	1	88	490	6	74	113	...	8	1,147
Midnapore ...	District operations.	1,726	...	8,372	...	17,166	24,839	13,105	2,782	11,080	317,637	10,403	2,066	45,332	61	1,291	454,239
24-Parganas	Private estates	·22	...	2	...	...	...	2	2	2	83	1	...	23	...	4	119
Murshidabad	Ditto ...	28·78	...	29	1	75	178	88	149	131	12,144	146	103	1,442	...	21	14,507
Dacca ...	District operation.	2,101	...	54,714	...	25,548	162,460	2,032	...	5,030	615,598	46,295	...	17,144	296	643	929,730
Mymensingh	Ditto ...	789	...	9,538	2,183	5,821	19,430	437	1,701	755	119,351	6,794	2,340	8,367	Not reported	...	...
Bakarganj ...	Government and temporarily-settled private estates.	...	...	33	...	...	579	...	...	...	7,962	832	...	1,052	...	12	11,072
Rajshahi ...	District operation.	1,102	...	5,661	42	12,552	19,283	2,091	1,896	118	212,013	8,125	3,854	56,247	197	168	329,250

APPENDIX VIII.

Progress made in recovery of costs during the year ending 30th September 1916.

Division.	District.	Estate or tract under settlement.	Demand (outstanding *plus* current).			Collections.							Balance.		
						Landlord's share.			Occupier's share.						
			Landlord's share.	Occupier's share.	Total.	Voluntary.	By certificate.	Total.	Voluntary.	By certificate.	Total.	Grand total collected.	Landlord's share.	Occupier's share.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
A.—Imperial operations.															
Burdwan	Midnapore	District operations	3,83,559	1,61,654	5,45,213	4,33,002	11,582	4,44,584	Included in column 7.	706	706	4,45,290	...	...	99,923
Dacca	Dacca	.....	...	...	7,22,446	5,56,437	43,354	5,99,791	3,68,688	1,756	3,70,444	9,70,235	...	...	...
	Mymensingh	District operations	6,00,000	5,06,154	11,06,154	2,88,983	...	2,88,983	4,19,657	...	4,19,657	7,08,640	2,11,017	86,497	3,97,514
B.—Minor operations.															
Burdwan ...	Bankura	Petty zamindari estates	3,733	1,117	4,850	...	...	...	...	399	399	399	3,733	719	4,452
	Hooghly	Petty estates	449	1,921	2,371	...	27	26	...	1,818	1,818	1,844	423	104	527
Presidency	Nadia	Petty zamindari estates	55	...	55	...	...	...	...	...	...	...	55	...	55

APPENDIX IX.

Expenditure for work done (including all Book-debit charges) during the year ending 30th September 1916.

Branch of work.	Dacca.						Mymensingh.						Midnapore.		
	In the year under report.			Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.			In the year under report.		
	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.
Traverse Survey done by Settlement Officer.	...	...	...	...	4,002	...	...	...	...	...	...	...	...	...	...
Cadastral Survey	...	...	...	3,157	2,86,355	91	...	1,088	...	6,432	6,26,847	97	293	46,059	158
Khanapuri	...	...	...	3,157	1,52,197	48	...	1,089	..	6,432	2,29,120	36	293		
Preliminary Office Work	...	...	...	3,130	42,092	13	...	382	...	6,432	1,00,833	16	293	38,102	130
Bujharat	...	...	...	3,130	2,60,195	83	68	9,834	145	6,432	4,82,102	75	998	1,03,765	104
Attestation	...	155	...	3,130	2,58,974	83	1,068	61,584	58	6,448	3,90,188	61	998		104
Objections	...	1,429	...	3,130	40,076	13	1,246	8,165	7	6,269	91,053	15	1,144	13,928	12
Final Office Work— Janch	...	802	...	3,130	29,115	9	1,309	12,761	10	6,217	69,735	11	1,036	48,558	47
Statistics	826	21,349 171	26	3,130	71,834 171	23	697	4,880	7	5,272	32,408	6	1,226	9,629	8
Preparation of 16" maps ...	1,361	4,702	4	3,130	14,610	5	1,010	7,504	7	4,825	35,274	7	1,533	3,040	...
Topographical maps ...	...	...	...	...	...	...	1,500	1,672	1	2,300	3,021	1	...	...	...
Final records	1,930	1,04,321	54	3,030	1,89,143	63	1,474	73,230	49	5,369	2,16,489	40	1,359	63,745	...
Computation and recovery ...	1,231	25,267 1,019 3,532	21	1,796	35,962 1,019 8,893	20	1,140	20,066	18	1,203	49,327	12	1,235	14,753	...
Case work	400	5,131	13	500	5,886	12	1,600	13,660	9	2,000	44,882	22	...	...	...
Section 112	...	...	...	...	...	...	...	...	...	...	...	...	...	2,826	...
Supervision	...	41,121	...	...	3,96,586	...	...	75,077	...	...	7,36,056	...	...	66,425	...
Supplies, services and contingencies— Ordinary	...	52,294	...	...	3,36,955	...	...	38,333	...	...	4,15,029	...	...	35,818	...
Press														32,154	
Jamabandi	...	2,361	...	...	29,349	...	...	2,521	...	...	10,094	...	...	...	...
Diara	...	2,193	...	...	24,484	...	...	4,820	...	...	9,639	...	...	1,192	...
Partition	...	130	...	...	8,421	...	...	...	...	...	...	...	...	...	...
Cess revaluation	...	17,162	...	...	64,436	...	...	...	...	...	...	...	...	...	...
Town Survey	...	268	...	...	19,839	...	...	...	...	...	...	...	...	...	...
Total Cost ...	...	2,83,407	...	...	22,80,594	...	...	3,36,616	...	...	35,41,992	...	...	4,80,094	...

Expenditure for work done (including all Book-debit charges) during the year ending 30th September 1916—concluded.

BRANCH OF WORK.	MIDNAPORE—*concluded.*			RAJSHAHI.						TIPPERA-NOAKHALI.					
	Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.		
	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.
Traverse Survey (done by Settlement Officer).	...	...	...	...	...	...	...	...	...	23	322	14	23	322	14
Cadastral Survey	4,136	5,34,226	129	685	63,661	93	3,219	3,23,920	101	833	90,555	109	1,539	1,70,450	111
Khanapuri	4,136	...	...	685	27,377	40	3,219	1,66,554	52	833	33,983	42	1,539	65,019	42
Preliminary Office Work	4,136	1,95,376	47	685	9,510	14	3,219	43,976	14	833	11,689	14	1,539	23,803	16
Bujharat	3,873	3,68,094	95	983	1,06,334	108	3,219	3,47,409	108	833	68,097	83	1,539	1,32,847	86
Attestation	3,873			860	95,049	111	2,572	2,21,377	86	706	42,880	61	706	42,880	61
Objections	3,863	42,775	11	751	12,731	17	2,448	37,874	16	706	11,676	17	706	11,676	17
Final Office Work—															
Jamch	3,157	1,20,237	38	750	16,728	22	2,018	43,520	22	705	22,333	32	706	22,333	32
Statistics	2,489	16,371	7	1,102	7,423	7	1,102	14,496	13	...	3,289	..	...	3,289	...
Preparation of 16" maps ...	2,464	6,536	2	560	4,601	8	1,030	7,818	8	...	79	...	...	79	...
Topographical maps	...	...	...	560	1,579	3	1,342	6,453	5	...	297	...	...	297	...
Final records	2,741	1,15,644	43	539	34,495	64	578	40,900	73	...	...	...	...	...	...
Computation and recovery ...	1,235	17,967	15	270	1,612	6	270	1,612	6	...	...	...	...	...	...
Case work	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Section 112	...	13,292	...	...	...	...	...	...	...	...	...	...	...	...	...
Supervision	...	2,88,406	...	...	96,655	...	...	3,15,270	...	...	88,194	...	...	1,39,539	...
Supplies, services and contingencies—															
Ordinary	...	2,90,809	...	...	75,124	...	...	3,47,838	...	...	1,02,605	...	...	1,32,180	...
Press		1,04,386													
Jamabandi	...	...	...	...	...	...	...	...	...	...	725	...	...	725	...
Diara	...	1,193	...	...	...	...	...	...	...	...	...	...	...	...	...
Partition	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cess revaluation	...	...	...	...	9,101	...	...	21,347	...	...	3,339	...	...	3,339	...
Town Survey	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Cost ...	...	24,15,312	...	...	6,61,970	...	...	19,30,395	...	...	4,80,063	...	...	7,48,778	...

APPENDIX X.

Result of inspection of Survey Marks during the year ending 30th September 1916.

Division and District.	Total number of estates surveyed under the Survey Act or Bengal Tenancy Act.	Total number of estates in which permanent boundary marks were erected.	Number of marks erected in estates mentioned in column 3.	Number of marks inspected during the year under report.	Result of inspection of marks shown in column 5. Number in fair order.	Number damaged.	Number missing.	Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
1	2	3	4	5	6	7	8	9	10	11
Government and Temporarily-settled Estates.										
Burdwan ... Burdwan ...	...	17	378	220	184	27	9	...	.....	
Birbhum ...	3	3	14	14	14	...	...	...	.....	
Bankura ...	7	7	30	26	26	...	...	...	.....	
Midnapore ...	62	62	2,973	2,811	2,668	95	48	2	Rupees 6. The cost was met from the fund of the Sujamutha estate.	
Hooghly ...	6	27	799	712	689	...	23	...	.....	
24-Parganas ...	24	23	1,972	1,894	1,802	63	29	7	Rupees 3-4 met from Khasmahal contingencies.	
Nadia ...	49	32	1,026	1,048	1,016	3	29	9	Rupees 24 from Khasmahal grant.	
Murshidabad ...	64	59	915	562	404	17	141	10	Rupees 35-4 from Khasmahal grant.	
Jessore ...	...	7	63	63	62	1	...	...	.....	
Khulna ...	26	17	233	233	199	10	24	...	.....	
Bakarganj ...	174	114	345	145	107	20	18	...	.....	
Mymensingh ...	34	2	458	408	328	50	30	100	Rupees 225 met from Khasmahal grant.	
Chittagong ...	5	5	2,329	915	652	...	263	190	Rupees 760 met from Khasmahal contingent grant.	
Tippera ...	142	...	307	94	73	1	20[a]	...	.....	
Noakhali ...	134	25	186	160	157	...	3	...	.....	
Malda	30	16	158	87	84	...	3	...	.....	
Bogra	2	2	478	125	105	15	5	5	Rupee 1 met from contingency.	
Pabna ...	5	5	102	...	...	...	...	...	.....	
Darjeeling ...	4	3	193	193	193	...	...	...	.....	
Total ...	771	423	13,501	9,710	8,763	302	645	323		
Wards' Estates.										
Burdwan ... Bankura ...	23	23	433	247	247	...	...	...	.....	
Midnapore ...	1	1	909	894	766	39	89	...	.....	
Presidency ... Murshidabad ...	1	1	22	22	22	...	...	...	.....	
Dacca ... Bakarganj ...	3	3	1,096	1,096	1,057	5	34	5	.....	
Chittagong ... Tippera ...	2	2	3,054	293	155	21	116	...	.....	
Rajshahi ... Dinajpur ...	2	2	683	129	129	...	...	...	.....	
Malda	2	2	103	52	52	...	...	...	.....	
Total ...	34	34	6,300	2,732	2,428	65	239	5		
Zamindari Estates.										
Burdwan ... Burdwan ...	...	57	314	271	270	...	1	...	.....	
Bankura ...	61	61	299	291	256	7	29	...	.....	
Birbhum ...	69	69	720	720	704	...	16	...	.....	
Midnapore ...	3	3	864	753	597	18	138	...	.....	
Hooghly ...	40	40	255	205	196	5	4	...	.....	
24-Parganas ...	45	37	326	12	12	...	...	...	.....	
Murshidabad ...	16	11	1,674	937	872	...	65	1	Rupee 1-4 from allotment sanctioned by Director of Land Records.	
Presidency ... Nadia ...	2	2	37	37	34	...	3	...	.....	
Jessore ...	1	22	555	57	57	...	...	...	.....	
Khulna ...	15	15	491	219	189	17	13	...	.....	
Dacca ... Bakarganj ...	3,025	3,025	4,507	16	9	..	7	1	.....	
Malda	4	4	494	112	19	2	91	19	Cost of restoration was met by the Zamindars concerned.	
Rajshahi ... Pabna	15	15	203	...	...	...	...	...	.....	
Rangpur ...	17	10	302	25	22	2	1	...	.....	
Total ..	3,313	3,371	11,041	3,655	3,236	51	368	21		
Grand Total ...	4,118	3,828	30,842	16,097	14,427	418	1,252	349		

[a] Washed away.

APPENDIX XI.

Statement showing maps in stock received and sold during the financial year ending 31st March 1916.

Particulars.	Number of copies.	Value.	Number of maps of which there are less than four copies in stock.
1	2	3	4
		Rs. A. P.	
District map—			
Balance on 1st April 1915 ...	42	...	...
Additions during the year ...	...	...	...
Total ...	42	...	...
Issue on public service ...	...	...	...
Issue by sale	4	1 8 0	...
Total ...	4	...	...
Balance on 31st March 1916 ...	38	...	....
Thana maps—			
Balance on 1st April 1915 ...	27,213	...	...
Additions during the year ...	1,527	...	...
Total ...	28,740	...	...
Issue on public service ...	5,021	...	...
Issue by sale	653	277 14 0	...
Total ...	5,674	...	...
Balance on 31st March 1916 ...	23,066	...	...
Village maps—			
Balance on 1st April 1915 ...	138,091	...	...
Additions during the year ...	29,936	...	...
Total ...	168,027	...	...
Issue on public service ...	624	...	...
Issue by sale	7,353	1,862 10 0	...
Total ...	7,977	...	...
Balance on 31st March 1916 ...	160,050	...	...

B. S. Press—25-1-1917—2171J—375—F. T. R.

REVENUE DEPARTMENT.

LAND REVENUE.

CALCUTTA, THE 19TH FEBRUARY 1917.

RESOLUTION No. 1650 L.R.

READ—

The Survey and Settlement Reports for the year ending 30th September 1916.

THE Survey and Settlement Department was considerably affected during the year by the economies enforced in consequence of the war. No new ground was broken and the programme was curtailed in districts in which settlement was in progress. A large number of the trained subordinate agency had to be disbanded. Every endeavour was made to find employment for discharged settlement kanungos in other Departments of Government.

2. The main programme of the Survey Department was the traverse survey of 1,382 square miles. It included 747 square miles in Tippera of low-lying country cut up by deep channels, and 568 square miles of diara area comprising *chars* in the Ganges adjoining Rajshahi district and riparian lands in Malda district.

The effect of curtailment of the normal programme of the Survey Department is already evident in the cost-rates, which are appreciably higher than those on which the programmes were originally framed, the standing charges of the controlling staff being spread over smaller areas.

The Department had in hand a substantial programme of miscellaneous surveys and mapping, including Howrah Town survey, topographical revision of the Calcutta Added Area, and traverse of a zamindari estate (Mathurapur) in Malda.

The Drawing Office was removed from Shillong to Calcutta and satisfactory arrangements were made for adequate and economical reproduction of cadastral and other maps.

3. The Government Survey School near Comilla continued to make steady progress and justified its existence. Accordingly it has been decided to acquire its site on the Lalmai Hills a few miles out of Comilla town and to put the School on a permanent basis. Arrangements were also made for a special course of training for Collectorate kanungos.

4. A comparatively small area for cadastral survey was taken up, but the areas in which attestation was completed and the record finally framed exceeded any reported in recent years. Cadastral survey and preparation of record-of-rights were in progress in sixteen districts. Major or Imperial district operations proceeded in Faridpur, Jalpaiguri, Dacca, Mymensingh, Midnapore, Rajshahi, Noakhali and Tippera, while minor operations taken up in advance of district operations for urgent reasons at the expense of the local Government or private parties were conducted in diverse parts of the districts of Burdwan, Hooghly, Howrah, 24-Parganas, Nadia, Murshidabad, Bakarganj, Faridpur, Malda, and Noakhali. In these operations, both major and minor, the area cadastrally surveyed during the year aggregated 1,850 square miles. Preliminary records were written for 2,036 square miles and the records of 3,906 square miles were attested and those of 3,529 square miles were finally published. As in previous years large re-settlements of land revenue were made in the course of these operations, mostly in Murshidabad, Dacca, Mymensingh, Bakarganj, Faridpur, and Noakhali. The diara resumption proceedings carried out in Dacca, Mymensingh, and Midnapore were also extensive. With the increase of these proceedings difficulties have constantly arisen from want of the old maps from the time of the Permanent Settlement. These maps, hitherto regarded primarily as of historical interest, have thus acquired a considerable practical value. They are not now available in India and accordingly opportunity was taken of Major Hirst's furlough to depute him for a portion of it for their study at the India Office and British Museum. Major Hirst's report is awaited.

5. The operations in Faridpur and Jalpaiguri were brought to a close in March, the total number of districts in which settlement operations have been completed thus rising to four. The operations in Dacca are in their

closing stages, and the progress in nearly all branches of work connected with the major settlements in hand is exceedingly satisfactory.

In Mymensingh attestation of the record was completed. Questions affecting the status of jotdars in the Jamuna (old Brahmaputra) *chars* and of rent-free owners owing allegiance to no man were decided. Illegal enhancements, forcible dispossession, and the exaction of high *abwabs* were found to be the characteristics of the landlords of the tract known as the Madhupur jungle.

An area of 293 square miles was cadastrally surveyed in Midnapore, and the detail survey of the district has now been completed. The year's work was difficult and expensive involving reconciliation with maps of previous surveys. The number of rent-free claims was large and they demanded much scrutiny, while the framing of the record of service lands gave trouble. Owing to the water-logged condition of the area harvests are precarious, and fixed cash-rents are rendered impossible ; the ingenuity of the people has devised various curious systems of rent mainly based on produce to meet the local conditions.

Cadastral survey of Rajshahi district was finished with the completion of 685 square miles of a long river strip comprising the frontage of the Ganges along the districts of Murshidabad, Rajshahi, Nadia, and Pabna. The principal problem at attestation was illegal enhancement of rents, but most of the cases were compromised. In *char* lands the *utbandi* system affords problems which remain to be solved.

In Tippera and Noakhali the second settlement block of 833 square miles was cadastrally surveyed. In the latter district a considerable amount of sub-infeudation was found to prevail in the area under attestation.

6. The printing of the record-of-rights was successfully managed in Dacca, Mymensingh, and Midnapore. It started late in Rajshahi and necessarily retarded recovery operations in that district, as copies are distributed at the time of recovery.

7. After the improvement of the jute market recovery operations resumed normal conditions and the collections, except in Rajshahi, exceeded expectation. Sparing use was made of the certificate procedure and where it was found necessary special care was taken in applying coercive measures. The favourable character of the jute market stimulated the sale of maps and khatians, the price fetched in Dacca and Mymensingh amounting to Rs. 70,000.

8. Case-work was omitted from the curtailed programme. Some work was, however, done in Dacca and Mymensingh. The cases dealt with were mostly uncontested and were decided on terms agreed on between the parties, resulting in an increase of about 20 per cent. on existing rents. Some cases for commutation of produce-rents were tried in Midnapore and Rajshahi.

9. Cess-revaluation by the Settlement Department was completed in Dacca and started in Noakhali where it proceeded simultaneously with attestation and *janch* (scrutiny) of settlement records. Good progress was made in Rajshahi where much preliminary work was done and the revaluation of 637 estates completed, resulting in an increase of cess from Rs. 11,907 to Rs. 17,719.

10. The Director's careful analysis of the financial aspect of the operations is reassuring and shows that each major settlement worked within its sanctioned allotment without sacrifice of efficiency. It is further shown that there is good reason to expect that save in the case of the Midnapore Settlement it will be possible to complete operations without exceeding the total amounts sanctioned. The result of the enquiry, which Government ordered last year to be made in the case of Midnapore, is not yet before Government. The Director, however, has given warning of a substantial increase in the estimates.

11. The most important minor operation is the revisional settlement of Fatehsingh Estate belonging to the Nawab Bahadur of Murshidabad preliminary to the introduction of a scheme of continuous maintenance of the record and the application of the certificate procedure for recovery of arrears of rent. The original record of the estate was prepared eight years ago.

The initial revision of that record is now in progress. It is hoped that a satisfactory scheme will be sanctioned before long and that the first experiment will be made in the working of section 158A of the Bengal Tenancy Act. The essential feature of this experiment is that it is undertaken on the application of the landlord who will bear the cost of the initial revision as well as the subsequent maintenance.

12. A rapidly growing tendency to utilise the records-of-rights in disputes relating to land in the Civil, Criminal and Revenue Courts in the Presidency, is described in the Director's report.

13. In December 1915 Major F. C. Hirst, I.A., Director of Surveys, went on furlough. Owing to the paucity of officers in the Survey of India, Mr. J. C. Nixon, I.C.S., who was then Assistant Director, was appointed to officiate for him. The period was one of extensive re-organisation required by the constitution of a separate Survey Department for this Presidency and the ability displayed by Mr. Nixon in carrying the department through this stage of transition amply justified his selection. Mr. M. C. McAlpin, I.C.S., completed his third year as Director of Land Records during the period under review : his technical knowledge and administrative capacity have enabled him to control with marked efficiency the complex operations committed to his charge. His Excellency in Council has read with much pleasure the commendation bestowed by the Director on Messrs. Sachse, Nelson, Jameson, Ascoli, Prance, and Thompson and on the other members of the Indian Civil Service who held subordinate charge under them. Their good work and that of the officers of the Provincial Civil Service and Subordinate Executive Service will be noted.

ORDER.—Ordered that this Resolution be published in the *Calcutta Gazette* and that a copy of it, together with copies of the two Reports, be submitted to the Government of India.

By order of the Governor in Council,

L. BIRLEY,

Offg. Secy. to the Govt. of Bengal.

No. 1651.

COPY, with copies of the two reports, forwarded to the Surveyor-General of India, for information.

No. 1652.

COPY, with copy of the Survey Department's report, forwarded to the Municipal Department of this Government, for information, with special reference to paragraphs 17-24 and 41.

No. 1653.

COPY, with copies of the two reports, forwarded to the Appointment Department of this Government, for information, with special reference to paragraph 13 of the Resolution.

Nos. 1654-55.

COPY forwarded to the $\frac{\text{Director of Surveys}}{\text{Director of Land Records}}$, Bengal, for information.

By order of the Governor in Council,

M. A. MOMEN,

Under-Secy. to the Govt. of Bengal.

CALCUTTA ;
The 19th February 1917.

B. S. Press—22-2-1917—3123J—475—R. F. T.

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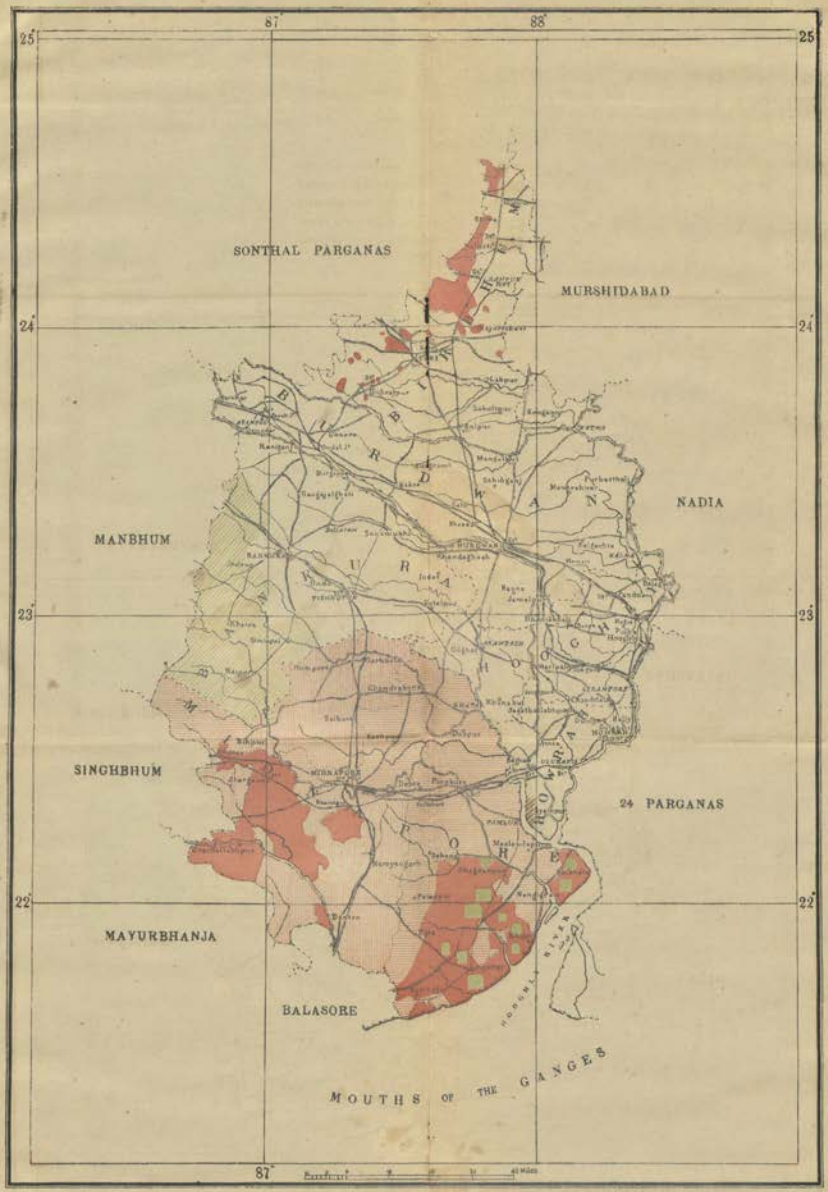

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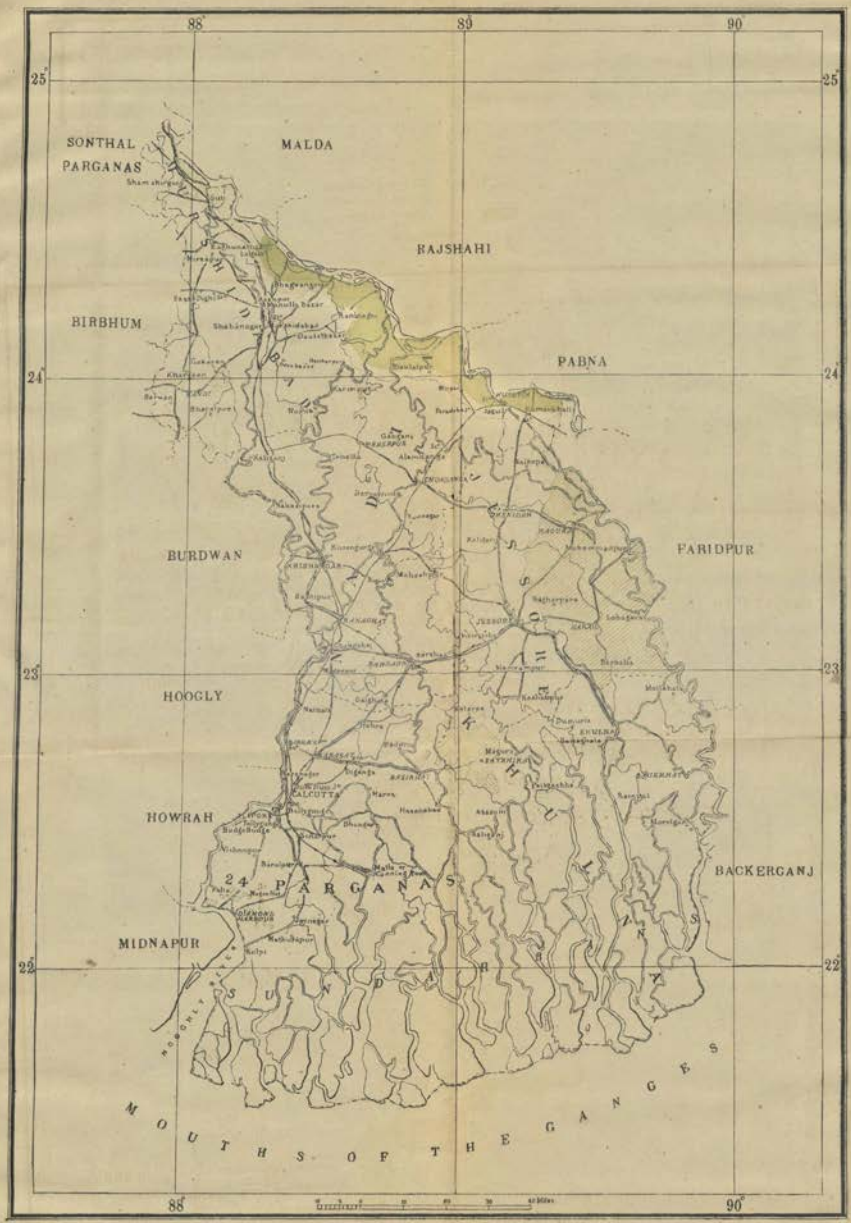

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TO 30TH SEPTEMBER 1916.

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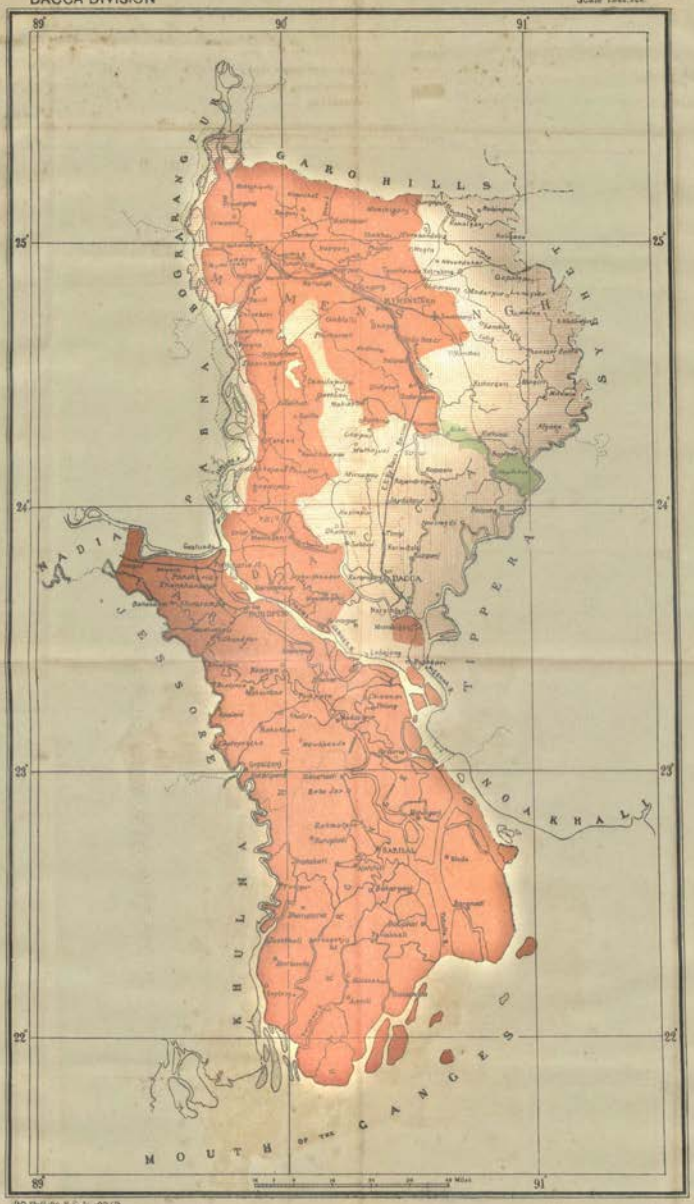

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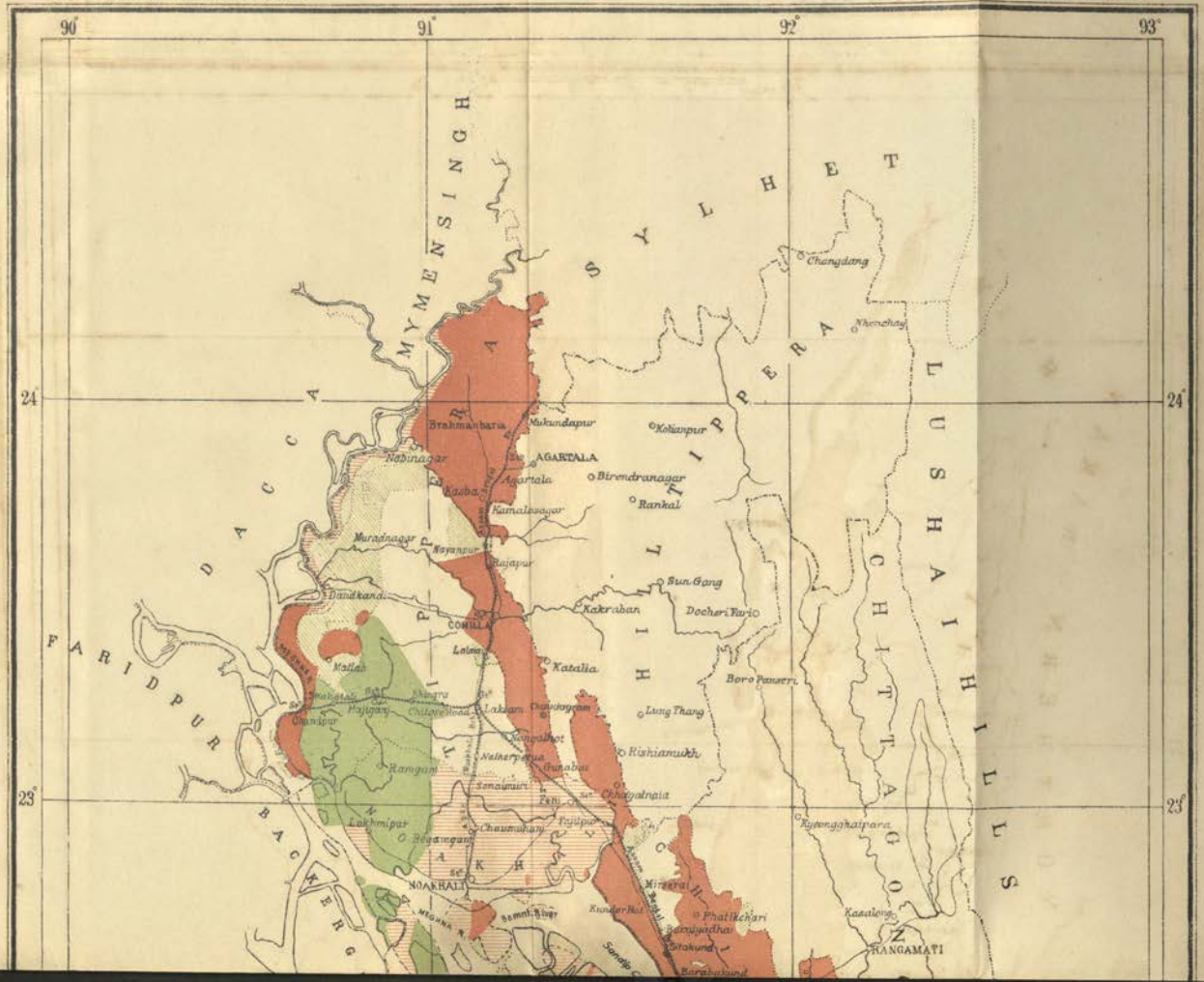
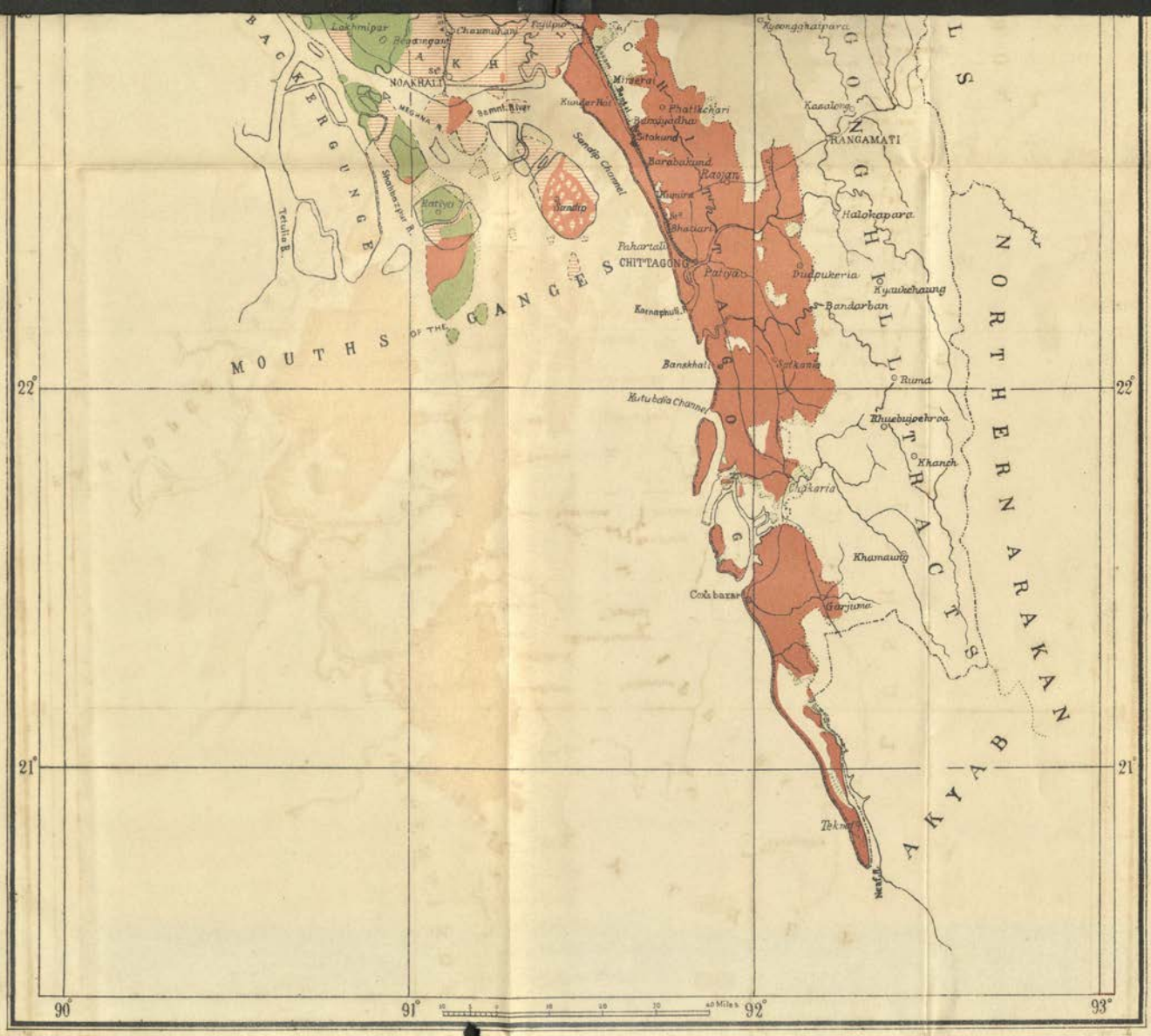
TO 30th SEPTEMBER 1916

CHITTAGONG DIVISION

Scale 1,000,000





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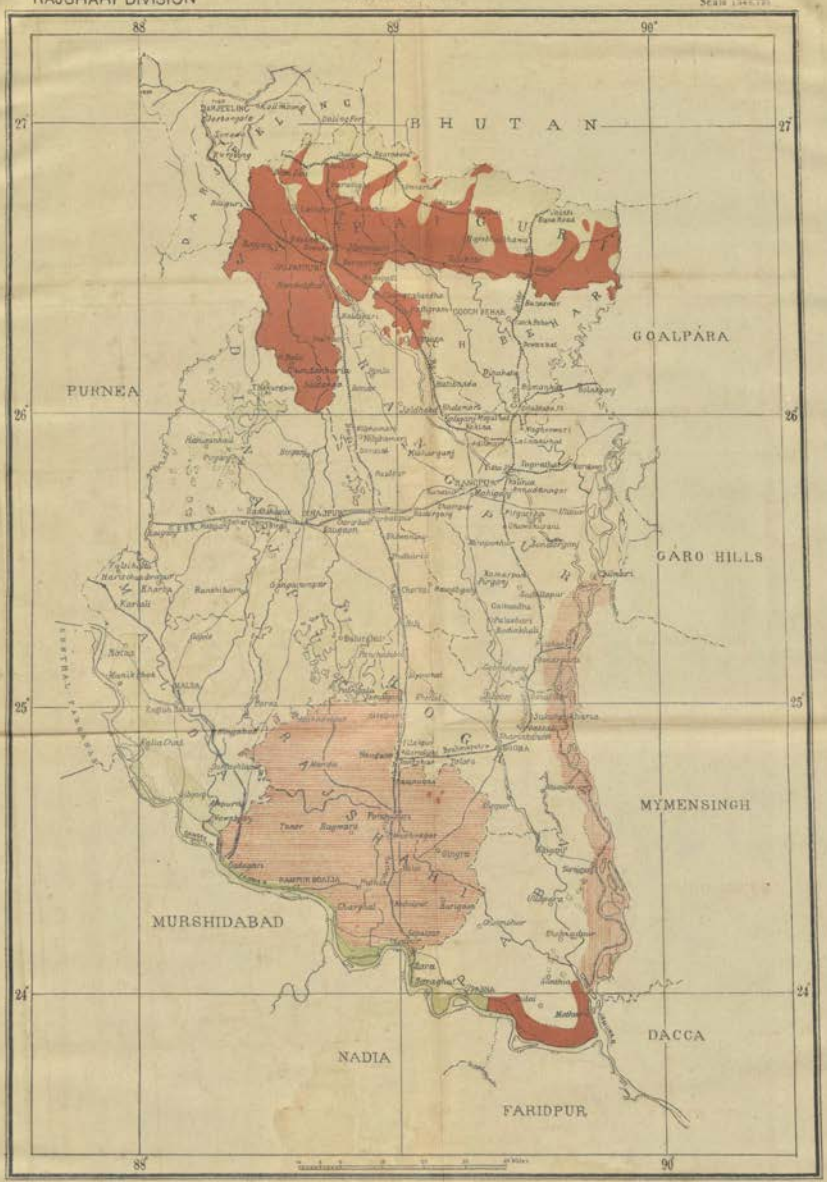
PROGRESS OF MAJOR SETTLEMENT WORK

RAJSHAHI DIVISION

TO 30th SEPTEMBER 1916

Scale 1 inch = 16 miles



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ANNUAL REPORT

ON THE

SURVEY OPERATIONS IN BENGAL

(OTHER THAN CADASTRAL SURVEYS)

DURING THE YEAR

1916-17.

133050

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No. 4697.

FROM C. A. O'DONEL, ESQ.,
Offg. Director of Surveys, Bengal.

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,
REVENUE DEPARTMENT.

Dated Calcutta, the 21st December 1917.

SIR,

I HAVE the honour to submit my report for the survey year ending 30th September 1917. Mr. J. C. Nixon, I.C.S., held charge from 1st October to 17th December 1916. Major F. C. Hirst, I.A., on his return from leave held charge from 18th December 1916 to 20th May 1917 when he reverted temporarily to military duty, making over charge of his duties to me on 21st May 1917.

2. The main traverse programme consisted of 890 square miles of traverse in district Tippera and the Ganges Diara. The refixing of lost stations in Bankura and Jessore which were partly traversed in 1914-15 was also started but as no provision could be made for this work in the financial year ending 31st March 1916, nothing could be done in these areas until late in the field season. It was only possible to refix the stations in 383 square miles in Jessore and in about 110 square miles in Bankura before field work had to be closed owing to the rains having set in.

Programme.	Square miles.	Actually traversed.
Tippera	750	717
Ganges Diara	140	186

3. The cost rate per square mile for districts Tippera and Noakhali works out at Rs. 63·6 per square mile which is within the sanctioned rate of Rs. 65 for the districts.

In the Ganges Diara the cost rate is Rs. 97·3 per square mile. This is due largely to the amount of duplicate traversing which was found necessary in the area traversed during the previous season, and also to certain scattered mauzas being traversed during the season. The over-head charges also effected the cost rates owing to the reduced programme. The question of adjustment of over-head charges was submitted to Government with Mr. Nixon's letter No. 3570 dated the 12th June 1916 which is under consideration of Government.

Bengal Traverse Party.

(Imperial Operations.)

4. I held charge of the traverse operations from the beginning of the year under report up to 20th May 1917, when I made over charge of my duties to Mr. O. E. C. Judd, who carried on the work in addition to his duties as officer in charge, Miscellaneous Surveys.

5. **District Tippera.**—The programme consisted of the traverse of the remainder of the district falling in thanas Muradnagar, Chandina, Comilla,

Laksham and Chauddagram excluding the Chakla Roshnabad Estate traversed in 1892-93. An area of 717 square miles was traversed which completed the traverse operations in the district.

6. **Ganges Diara in connection with Rajshahi Settlement.**—The programme was the traverse of the chars and low lands of the river falling in districts Murshidabad and Malda. An area of 186 square miles, which includes the river-bed was traversed. This completes the traverse of the Ganges Diara in the Presidency. Much duplication of traversing resulted owing to the method adopted in this diara. The method is referred to in paragraph 10 of last year's report and from a traverse point of view, is considered highly unsatisfactory. The increase over the usual cost rates is to a great extent due to the duplicate traversing and refixing of lost stations which was found necessary.

7. **Refixing of lost stations in Districts Jessore and Bankura.**—The cadastral survey in these districts had been postponed owing to the War, and it was found necessary to refix many of the stations for cadastral survey operations to be started during the following season, *i.e.*, 1917-18. Field work was started too late in the season to complete the work. In district Jessore, stations were refixed in thanas Magura and in part of Muhammadpur, and in district Bankura, stations were refixed in parts of thanas Katra, Chatna and Simlapal. It will be necessary to send a number of traversers into these districts early next field season to complete the refixing of stations or the Settlement Department will be seriously affected.

8. **Comparative Mapping and 4″ Plotting.**—Comparative mapping was completed in the diaras of districts Noakhali and Mymensingh and in the Ganges Diara from the trijunction of districts Rajshahi, Malda and Murshidabad up to the Faridpur district.

9. 4″ plotting for jurisdiction maps is well up to date and has been completed in districts Mymensingh, Rajshahi, Dacca and Noakhali during the year under report. The 4″ jurisdiction mapping of Jalpaiguri which was undertaken by this Department has made fair progress and the mapping of three thanas of Midnapore not previously done by the Settlement Department was started.

Miscellaneous Survey Work.

10. **Howrah Municipality.**—The progress of the work was retarded by the lack of interest taken by parties at the time of survey and demarcation and to the large number of disputes, and the difficulties experienced in obtaining the addresses of owners of lands who were only discovered by a comparison made of the new records with the Municipal Demand Register and who had not taken the trouble to point out their holdings at the demarcation stage.

11. One thousand and forty-eight disputes have been recorded, 1,003 decided and the decision in 828 cases have been shown on the original sheets and demarcation traces. Fair progress has been made in the re-numbering and extraction of areas of holdings.

12. The preparation of 16″, 4″ and 600′=1 mile maps of the Municipality has been postponed pending decision of the question of costs which is under correspondence.

13. **Cossipore-Chitpur Municipality.**—The distribution of the 50′ sheets has been completed. The revenue maps (142 sheets) have been prepared but 52 sheets remain for examination. The work should be completed by the end of November 1917.

14. **New small Scale Maps of Calcutta and the added area.**—The work was started but was discontinued for want of funds.

15. **South Suburban Municipality.**—During the year, the reproduction of the 16″ wall map was completed and copies of the map supplied to the Commissioner of Presidency Division, Collector of 24-Parganas, the Chairman, Calcutta Corporation, and the Chairman, Calcutta Improvement Trust.

16. **Revision of Calcutta added area and maintenance.**—The work was discontinued after some progress had been made with the revisions as it

was found that owing to the great changes that had taken place since the original survey the work could not be carried on without a re-traverse of the area.

17. **Darjeeling Municipal Survey.**—The case is under consideration with the Municipality.

18. **Jalpaiguri-Bhutan Boundary.**—The final examination of the fair maps remains to be done.

19. Other Miscellaneous operations carried out during the year :—

(*a*) The traverse of Bilpabla and Boyr Singha Estates (completed).

(*b*) Traverse of third portion of Saugor Island (completed.)

(*c*) Traverse and 4″ skeleton survey of new chars in the Sundarbans. Thirty-seven islands in the Sundarbans were required by the Collector of 24-Parganas to be traversed and geographically fixed. It was found later that several of these islands had previously been surveyed by Mr. Delaney in seasons 1905—1908 and others were submerged at high tide. These were omitted from survey and eleven islands only were surveyed and their positions fixed.

(*d*) Survey of Akra-Matiabruz road—(115 disputes extending along the whole length of the road remain to be decided).

(*e*) Relaying and permanent demarcation between Mud Point and Lohar Char (completed).

(*f*) Relaying pillar No. 192 on Tipperah-Hill—Tipperah boundary (completed).

(*g*) Relaying and permanent demarcation of Darjeeling-Purnea District boundary (completed.).

(*h*) The checking of reduced level of the zero of the Rajmahal Gauge (completed).

(*i*) Relaying of boundary between Meherpur and Goalchiya villages, District Malda (completed),

(*j*) *Jalpaiguri Tea Gardens.*—The objections filed by the Tea Garden Managers have all been settled except two which are under settlement. (Recoveries of costs continued throughout the year. Rupees 2,267-8 has been deposited, leaving a balance of Rs. 795-8 to be recovered.

(*k*) Small scale comparative map of the River Jamuna.—No further progress was made with this work, which is referred to in paragraph 40 of last year's report.

Drawing Office.

20. **Reproduction Section.**—The printing in this office is done with 8 hand and 2 machine presses. An indent was made in letter No. 403, dated the 24th January 1916, for a new machine press. The machine was delivered and erected in June 1916 but was received without bed plates, rubber blankets and leather skins. These were asked for in letter No. 3815, dated the 27th June 1916, but were lost at Sea. A second supply was asked for and part has been received. A pneumatic printing frame was purchased and one taken on loan from the Survey of India.

21. The total output of map reproduction for the year was 1,503,801 of which 159,500 copies were printed at the Surveyor-General's Office.

The detail figures are given in Appendix III attached.

22. **Record Section.**—There are on record at present 58,385 Cadastral maps of which 14,104 were received during the year. The rack accommodation is insufficient and will have to be added to as new records are received.

23. **Drawing Section.**—This section was mainly employed on the $\frac{1}{4}$″ District maps, Chandra's revised mujmillis, 1″ Police-station and Union maps, 4″ colouring and Cadastral Badar work. The work of the section has been much increased as 1″ mujmillis and maps have to be prepared by Police-station Units in place of Thana Units. The section will require strengthening on this account.

24. **Map issue and copying section.**—One thousand and ten applications were dealt with and 711 printed sheets were sold to the public.

Bengal Land Surveying School.

25. The School was in charge of Mr. A. H. Pyster from opening of the session on 16th November 1916 up to the 31st January 1917 when he made over charge to Mr. R. L. Banerji, Head Master, who is acting as Principal of the School.

26. Six District Kanungos joined the school for training and with one exception completed their training.

27. Eight candidate Kanungos joined, seven completed the course and one left the school after three and-a-half months.

26. The following table shows the number of students admitted and the results of the examination :—

	Number Admitted.		Passed Examination.	
	Hindu.	Muhammadan.	Hindu.	Muhammadan.
1st year	16	...	11	...
2nd year	8	...	6	...

29. The school was inspected on two occasions by Major Hirst and once by me. Mr. T. Emerson, I.C.S., Collector, Mr. F. W. Ward, I.C.S., District and Sessions Judge and Mr. W. H. Thompson, I.C.S., Settlement Officer, have shown much interest in the school and given invaluable advice frequently. The school was also visited by the Hon'ble Sir Henry Wheeler, K.C.I.E., C.S.I., The Hon'ble Mr. P. C. Lyon, C.S.I., the Hon'ble Mr. N. D. Beatson Bell, C.I.E., C.S.I., Mr. K. C. Dey, I.C.S., Mr. M. C. McAlpin, I.C.S., etc., etc.

30. It has been decided by Government to maintain the school permanently and proposals for creation of a permanent staff for it have since been submitted.

Imperial Standard Mapping Section.

31. Mr. E. G. Hardinge held charge of the section up to 16th October 1916 when he handed over his duties to Mr. P. Simpson. Mr. A. H. Kraal, Supervisor, resigned his post on 21st June 1917. He has not been replaced.

32. Twelve standard sheets, viz.,—$73\frac{N}{2\ \&\ 3}$, $73\frac{O}{14}$, $79\frac{J}{1,\ 5\ \&\ 6}$, $78\frac{K}{4}$, $79\frac{E}{10,\ 14\ \&\ 16}$ and $79\frac{I}{4\ \&\ 8}$ covering an area of 3786·07 square miles were sent for publication.

Twenty-eight other standard sheets are under completion. They appertain to districts Midnapore, Balasore, Mymensingh, Dacca, Bakarganj, Noakhali, Faridpur and the Garo Hills.

Tour and Service of Officers.

3 . **Tours.**—Major Hirst was on tour for 43 days, Mr. Nixon for 17 days and I for 13 days. This is less than usual and is due to the difficulty I found in making myself acquainted with the work of the Department generally which rendered it necessary for me to remain long at headquarters.

34. **Services of officers.**—Messrs. O. E. C. Judd and P. F. Delaney have had heavy programmes to deal with and have given me every possible help since I took over charge in addition to carrying on their work very ably.

Rao Sahib Damodar Rao, Personal Assistant, has given me invaluable help in administrative matters.

I have the honour to be,

Sir,

Your most obedient servant,

C. A. O'DONEL,

Offg. Director of Surveys, Bengal.

APPENDIX I—PART A.

Statement showing particulars of each survey Operation undertaken by the Bengal Traverse Party during the year ending the 30th September 1917.

Description of Works.	Geographical limit of work.	Origin used.	Number of villages.	Linear miles of chaining.	Number of new theodolite stations.	Number of Azimuths observed.	Number of Azimuths used.	Number of sub-traverses.	Number of village circuits.	Number of sub-circuits.	Number of pargas.	Number of main circuits.	Marks used (Number).							Area of each Thana in square miles.			
													Old stone or pillars.	Trijunction marks or Burn & Co's. cylindars.	Galvanized cylindars.	Country stones.	Iron pegs.	Pegs.	Total number of stations at which theodolite was set up.	Thana Muradpagar.	Thana Chandipa.	Thana Comilla.	Thana Lakshapa.
1	2	2	3	4	5	7	8	9	10	11	11a	12	13	14	15	16	16a	16b	17	18	19	20	21
District Tippera, Upland Traverse.	Lat. 23° 03′ 30″ to 23° 47′ 30.″ Long. 90° 51′ 09″ to 91° 18′ 40.″	Lat. 23° 30′ 00″ Long. 91° 0′ 00″	1,391	3,715	19,515	116	111	1,423	1,391	31	66	5	79	2,593	364	...	...	16,479	25,149	225	174	68	189
Char area Traverse included in Main Ganges Diara (districts Rajshahi, Murshidabad and Malda Diara) surveyed in season 1915-16.	Lat. 23° 52′ 30″ to 25° 20′ 00.″ Long. 87° 55′ 00″ to 89° 27′ 30.″	Lat. 24° 30′ 00″ Long. 88° 30′ 00″	127	775	3.059	...	...	321	127	...	...	...	13	120	161	8	...	2,757	3,935	District Malda 116*	District Murshidabad 70*	...	...
District Jessore, Upland Relaying Work).	Lat. 23° 15′ 35″ to 23° 41′ 25.″ Long. 89° 16′ 10″ to 89° 37′ 35.″	Lat. 23° 30′ 00″ Long. 89° 30′ 00″	616	1,782	...	...	...	486	616	15	...	1⅜	...	...	...	...	...	...	...	Thana Magura 308	Thana Mohammadpur 75	...	...
District Bankura, Relaying and 16″ Plotting work (area traversed in 1914-15.	.....	.....	870	...	...	...	...	542	870	22	...	2¼	...	...	...	...	...	...	...	Thana Chatua 42	Thana Khatra 58	Thana Simulpati 10	...
District Khulna, Boyrsingha Estate Traverse.	Lat. 22° 45′ 30″ to 22° 49′ 15.″ Long. 89° 17′ 45″ to 89° 20′ 45.″	Lat. 22° 30′ 00″ Long. 89° 30′ 00″	1	45	158	3	3	16	1	...	...	...	...	...	62	...	...	96	190	Thana Dumaria 6	...	...	...
District Khulna, Bil Pabla Traverse.	Lat. 22° 49′ 00″ to 22° 56′ 00.″ Long. 89° 25′ 20″ to 89° 30′ 45.″		1	53	292	4	4	19	1	...	...	...	...	4	83	...	...	205	330	Thanas Dumaria and Khulna 11	...	...	...
District 24-Parganas, Saugor Island, 3rd portion. Traverse (in Sundarbans).	Lat. 21° 39′ 00″ to 21° 40′ 15.″ Long. 88° 02′ 30″ to 88° 04′ 00.″	Lat. 22° 30′ 00″ Long. 88° 30′ 00″	1	10	81	2	2	3	1	..	...	...	...	...	47	...	...	34	87	Saugor Island 1·5	...	...	...
District 24-Parganas, some scattered island in Sundarbans Traverse.	Lat. 21° 30′ 00″ to 22° 00′ 00.″ Long. 88° 00′ 00″ to 88° 45′ 00.″		11	130	314	10	10	19	11	...	...	...	...	...	18	...	...	296	352	Sundarbans 14	...	...	...
District 24-Parganas, Akra and Matiaburuz Road Traverse.	Lat. 22° 25′ 00.″ to 22° 34′ 00.″ Long. 88° 18′ 00″ to 88° 20 00.″	Lat 22° 35′ 00″ Long. 88° 20′ 00″	...	16	183	10	9	...	...	...	...	...	...	...	...	...	32	151	183	...	...	...	...
District 24-Parganas, demarcation between Mud Point and Lohar Char.	.....	.....	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
District Malda, demarcation between village Goalchea and Meherpur.	.....	.....	...	31	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
District Tippera, Refixing the pillar No. 192 between British and Hill Tippera.	.....	.....	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rajmahal Gauge checking of levelling for rivet improvement in Bengal.	.....	.....	...	49*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Darjeeling and Purnea Boundary Demarcation.	.....	.....	...	28	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* Approximately.

Statement showing particulars of each Survey Operation undertaken by the Bengal Traverse Party during the year ending the 30th September 1917.

Description of Works.	Area of each Thana in square miles. Thana Obauddagram.				Total area dealt with in square miles.	Area for cadastral same season in square miles.	Area for traverse next season in square miles.	Number of 16" sheets.	Number of 32" sheets.	Number of 64" sheets.	Number of 4" sheets.	Number of G. T. connections.	Average error in feet per mile.	Demarcation by inhabitants (good or bad).	Magnetic declination.	Traverse data copied for Settlement Officer (date).	Maps used to guide surveyor (dates only).	Health of establishment.	Work started on	Work completed on	Remarks.
	22	23	23a	23b	24	25	26	27	27a	27b	27c	28	29	30	31	32	33	34	35	36	37
District Tippera, Upland Traverse.	61	...	...	...	717	...	...	1,737	...	...	...	3(A)	13·4	...	0°19′ E.	Will be ready by 31-12-1917.	4″ R. S. maps 1861—64.	Good ...	10-12-1916	16-6-1917	Longitudinal correction has been applied.
Char area Traverse, included in Main Ganges Diara (districts Rajshahi, Murshidabad and Malda Diara) surveyed in season 1915-16).	...	...	...	...	186[c]	186[c]	...	295	9	...	15	...	...	Nil	0°34′ E.	23-6-1917	4″ R. S. map 1846—69.	Fair ...	16-11-1916	8-4-1917	Ditto.
District Jessore, Upland Relaying Work.	...	...	...	...	383	...	1,041	1,710	...	...	...	...	...	...	0°19′ E.	Will be ready by 15-11-1917.	4″ Rough plotted sheets of 1914-15.	Good ...	1-3-1917	11-7-1917	Ditto.
District Bankura, Relaying and 16″ Plotting Work (area traversed in 1914-15).	...	...	...	...	110(b)	...	297(c)	1,304(o)	...	...	...	...	...	...	.....	Will be ready by 31-12-1917.	Ditto ...	Do. ...	1-3-1917	30-6-1917	Ditto.
District Khulna, Boyrsingha Estate Traverse.	...	...	...	...	6	6	...	8	...	...	...	...	..	Fair	0°19′ E.	3-5-1917	4″ R. S. maps 1852—55.	Do. ...	4-1-1917	7-2-1917	
District Khulna, Bil Pabla Traverse.	...	...	...	...	11	11	...	12	...	...	...	...	...	Do.	0°19′ E.	3-5-1917	Ditto ...	Do. ...	29-1-1917	3-3-1917	Ditto.
District 24-Parganas, Saugor Island 3rd Portion Traverse (in Sundarbans).	...	...	...	...	1·5	1·5	...	2	...	...	...	...	...	Do.	0°19′ E.	11-7-1917 for collector.	4″ maps 1905—08.	Do. ...	25-1-1917	14-2-1917	Ditto.
District 24-Parganas, some scattered island in Sundarbans Traverse.	...	...	...	...	14	14	1	...	...	...	13	3(B)	...	Nil	0°19′ E.	.....	Ditto ...	Fair ...	10-12-1916	20-5-1917	Ditto.
District 24-Parganas, Akra and Matiaburuz Road Traverse.	...	...	...	...	...	...	...	24†	...	...	...	1(C)	...	Nil	0°19′ E.	.....	1″ Standard sheets.	Do. ...	15-11-1916	30-12-1916	Ditto.
District 24-Parganas, demarcation between Mud Point and Lohar Char.	...	...	...	...	...	...	...	...	...	...	...	...	..	...	.....	.....	.....	...	...	...	
District Malda, demarcation between village Goalchea and Meherpur.	...	...	...	...	...	...	...	...	...	...	...	1(D)	...	...	.....	.....	... ..	...	...	...	
District Tippera, Refixing the pillar No. 192, between British and Hill Tippera.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....	...	...	...	
Rajmahal Gauge checking of levelling for river Improvement in Bengal.	...	...	...	..	...	...	...	...	...	...	...	...	...	...	.....	.....	.....	...	...	...	
Darjeeling and Purnea Boundary Demarcation.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....	...	...	...	

(A) Noagaon XXXV, Patwar XXXII (in East Calcutta Longitudinal series) and Mainamati H. S. (in Eastern Frontier series.)
(B) Saugor Lighthouse } in East Coast series.
(C) Samalia T. S. }
(D) Kamardanga XXX (in Calcutta Meridional series).
† 1″ = 20′ sheets.

[c] Area including 58 square miles water area.
(a) The 16″ plots for the remaining 586 square miles will be supplied during the ensuing field season.
(b) The area shown for relaying purpose is an approximate one.
(c) Includes the area 618 square miles of district Burdwan also.
(o) The sheets shown include the area of 522 square miles and those of remaining about 443 square miles will be supplied during the ensuing field season.

APPENDIX I—Part B.

Statement of outturn and cost rates for the year ending the 30th September 1917.

DISTRICT AND TRACT.	Description of works.	Estimated area in square miles to be dealt with.	Year of inception of operation.	AREA SURVEYED IN SQUARE MILES.		COST RATE PER SQUARE MILE.		Balance of area in square miles remain for survey.	Estimated cost completing area in column 9.	Estimated final cost rate per square mile.
				During the year under report.	Total including previous year.	During the year under report.	From commencement to end of the year under report.			
1	2	3	4	5	6	7	8	9	10	11
				District operations.					Rs.	Rs.
Noakhali	Traverse ..	3,201	1913	...	1,437	63·6	61	...	...	61
Tippera			1914	717	1,833					
Char area Traverse included in Main Ganges Diara (districts Rajshahi, Murshidabad and Malda Diara) surveyed in 1915-16.	Ditto ...	2,617	1910	186*	3,744†	97·3	71·9	...	...	71·9
Jessore	Partly relaying of the area traversed in season 1914-15.	2,900	1914	...	969	...	69	1,932	1,25,580	66
Bankura	Partly relaying and 16 plotting of the area traversed in 1914-15.	2,621	1914	...	965	...	53	1,656	1,07,640	60
Total	.....	...	...	...	...	...	...	...	...	...
				Minor operations.						
Khulna (Boyrsingha estate.)	Traverse ...	...	1917	6	6	111	...	...	...	...
Khulna (Bil Pabla) ...	Ditto ...	...	1917	11	11	77	...	...	...	...
24-Parganas (Saugor Island, 3rd portion.)	Ditto ...	...	1917	1·5	1·5	179	...	1	180	180
24-Parganas (some scattered islands in Sundarbans).	Ditto ...	...	1917	14	14	399	...	...	...	...
24-Parganas (Akra and Matiaburuz Road).	Ditto ...	...	1917	...	...	...	...	...	...	...
24-Parganas (Demarcation between Mud Point and Lohar Char.)	Demarcation ...	...	...	...	...	...	...	...	...	...
Malda (Demarcation between Goalchea and Meherpur).	Ditto ...	...	...	...	...	...	...	...	...	...
Tippera (Refixing the pillar No. 192 between British and Hill Tippera)	Ditto ...	...	...	...	...	...	...	...	...	...
Darjeeling and Purnea (boundary demarcation).	Ditto ...	...	...	...	...	...	...	...	...	...
Rajmahal Gauge (checking of levelling work.)	Levelling ...	...	...	...	...	...	...	...	...	...
Total ...	.....	...	...	...	...	...	...	...	...	...
GRAND TOTAL ...	.....	...	...	...	...	...	...	...	...	...

* Area including 58 square miles of water area.
† Including Rajshahi upland area, but excluding 19 square miles of Tauzi No. 60 surveyed in season 1915-16.

APPENDIX II.

Statement of sums expended during the year ending 30th September 1917.

District and Tract.	Description of work.	Expenditure incurred during the year under report.				Total expenditure from inception to end of the year under report.			
		Direct charges including share of general section, if any.	Share of control.	All indirect charges other than share of control.	Total.	Direct charges including share of general section, if any.	Share of control.	All indirect charges other than share of control.	Total.
1	2	3	4	5	6	7	8	9	10
District Operations.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Midnapore Comparative Diara mapping of Gadadharpur, Shorpur, Jalpai, district Midnapore.	Mapping	115	23	11	149	115	23	11	149
Ditto Reproduction of 16" Cadastral sheets.	Reproduction	16,041	3,717	12,340	22,098	Not available.			
Ditto Reproduction of wall map	Ditto	7	1	6	14	7	1	6	14
Noakhali and Tipperah	Traverse	31,760	7,354	2,719	41,833	1,31,422	6,493	11,430	1,89,345
Ditto Diara comparative mapping	Mapping	971	226	86	1,283	1,949	404	163	2,516
Ditto 4" plots jurisdiction mapping	Plotting	855	197	85	1,137	855	197	85	1,137
Ditto Reducing of original co-ordinates (arrear computation).	Computation	1,013	234	103	1,350	Not available.			
Ditto Reproduction of 16" Cadastral sheets ...	Reproduction	2,919	673	1,725	5,317	2,919	673	1,725	5,317
Ditto ditto of 1" Thana map, district Noakhali.	Ditto	34	6	27	67	38	7	29	74
Rajshahi—Diara	Traverse	14,406	2,641	865	14,906	64,778	11,041	5,605	81,424
Ditto Reducing of original co-ordinates (arrear computation).	Computation	654	150	61	865	...	Not available.		
Ditto Comparative Diara mapping	Mapping	1,760	410	153	2,323	1,810	420	155	2,385
Ditto Reproduction of 16" Cadastral sheets ...	Reproduction	11,859	2,747	9,123	23,729	15,671	3,471	10,564	29,706
Mymensingh—Reducing original co-ordinates (arrear computation).	Computation	205	48	16	269	Not available.			
Ditto 4" plots for jurisdiction mapping ...	Plotting	233	53	20	306	4,011	Not available.		
Ditto Diara comparative mapping, Jamuna River, North Block.	Mapping	202	47	6	255	Not available.			
Ditto Reproduction of 16" Cadastral sheets	Reproduction	11,211	2,591	8,624	22,426	Not available.			
Ditto ditto of 1" map	Ditto	2	...	1	3	2	...	1	3
Ditto ditto of 1" Thana map ...	Ditto	6	1	5	12	6	1	5	12
Jessore	Traverse	9,822	2,273	932	13,027	54,085	8,988	3,907	66,980
Bankura	Ditto	6,030	1,399	570	7,999	41,781	6,874	2,810	51,465
Nadia	Ditto	260	61	24	345	260	61	24	345
Dacca—Reproduction of 16" Cadastral sheets ...	Reproduction	9,255	2,147	7,119	18,521	Not available.			
DEDUCT—Price of Vandyke Press taken by Bihar and Orissa Government *vide* Accountant-General, Bengal's No. T-G / 112, dated the 3rd May 1917, to Director of Land Records, Bengal, Copy received with Director of Land Record's No. 3579 dated 8th May 1917.	.....	—4,072	...	...	—4,072	...	...	...	...
Total ...	.....	1,12,542	26,999	44,631	1,84,172	...	...	...	...
Minor Operations.									
Refixing of reference pillar of the boundary between Tippera and Hill Tippera, Station No. 192 of the arbitration map situated on the bank of Ganti river in Mauza Bhogjon, district Tippera.	Survey	150	45	3	198	150	45	3	198
Preparation of Revenue maps, Cossipore-Chitpore Municipality, district 24-Parganas.	Mapping	1,447	434	26	1,907	2,238	586	48	2,872
Preparation of Triangulation Charts and data ...	Ditto	82	24	1	107	324	68	2	464
4" plots of thana Jhargram, district Midnapore	Plotting	27	8	...	35	27	8	...	35
Traverse Survey of Boyarsingha, district Khulna, Government Estate No. 877.	Traverse	505	151	10	666	605	170	12	787
Darjeeling Purnia district boundary	Survey	554	166	11	731	647	185	12	844
Checking of the reduced level of the zero of the Rajmahal Gauge.	Levelling	335	100	6	441	335	100	6	441
Survey of Akra-Metiaburuz Road, district 24-Parganas.	Survey	715	214	12	941	715	214	12	941
Traverse Survey of 260 acres of land in Estate Saugor Island, 3rd portion, district 24-Parganas.	Traverse	204	61	4	269	204	61	4	269
Survey of 37 Islands within the Sundarbans, 24-Parganas. Relaying of boundary between Mud Point and Lohar Char, 5,000 acres, district 24-Parganas.	Survey	4,237	1,274	76	5,587	4,237	1,274	76	5,587
Howrah Town Survey	Traverse and detail ...	31,627	9,329	2,595	43,551	1,44,622	27,463	7,573	1,79,658
Colouring of fair maps, Cossipur-Chitpore, district 24-Parganas.	Mapping	707	212	55	974	4,168	832	134	5,134
Revision Survey of Calcutta added area, district 24-Parganas.	Survey	673	201	52	926	49,173	7,856	1,632	58,661
Calcutta Maintenance Scheme	Mapping	761	228	59	1,048	2,282	517	153	2,952
Darjeeling Town Survey (Revision of old maps of a portion of the municipality).	Survey	49	14	2	65	3,371	449	113	3,933
Carried over	.....	...	...	...	...	...	...	...	...

APPENDIX II—*contd.*

Statement of sums expended during the year ending 30th September 1917—*contd*

District and Tract.	Description of work.	Expenditure incurred during the year under report.				Total expenditure from inception to end of the year under report.			
		Direct charges including share of general section, if any.	Share of control.	All indirect charges other than share of control.	Total.	Direct charges including share of general section, if any.	Share of control.	All indirect charges other than share of control.	Total.
1	2	3	4	5	6	7	8	9	10
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Brought forward ...	.....	...	...	...	...	...	...	...	...
Minor Operations—concluded.									
Traverse Survey of Bheel Pabla, district Khulna...	Traverse	614	184	49	847	614	184	49	847
Demarcation of boundary between mauzas Goalchiya and Moherpur, district Malda.	Survey	426	127	33	586	426	127	33	586
Babupur-Wazirpur case, district Rajshahi	Do.	250	75	20	345	2,485	1,066	103	3,654
Jalpaiguri Tea Gardens	Mapping...	329	98	23	450	47 105	8,421	2,268	52,794
Darjeeling—Purnea boundary	Do.	—20	...	...	20	73	19	1	93
Comparative maps and field book of 5 villages of Pabna. Diara Survey, district Pabna	Do.	43	12	3	58	43	12	3	58
Survey of mauzas Alipur and Radhanagar Tauzi No. 33 for Maharajadhiraj of Burdwan.	Survey	39	11	3	53	39	11	3	53
Bengal—Imperial Standard Mapping Section—(Provincial share of Bengal).	.....	11,30	...	...	11,307	14,946	...	...	14,946
Tippera—Comilla Survey School	.....	8,457	...	...	8,457	89,915	...	285	90,200
Drawing Office, Bengal.									
Bengal—Record Section	.....	4,224	1,249	53	5,526	43,940	9,010	465	53,415
Do. —Thana Mapping Section	.....	10,471	3,087	146	13,704	67,235	12,896	1,285	81,416
Do. —Copying Section	.....	7,279	2,148	92	9,519	17,226	3,972	281	21,479
Reproduction Section.									
Reproduction of maps for Dacca Settlement final report.	Reproduction	91	27	69	187	91	27	69	187
Reproduction of ¼" map of Mymensingh district for Provincial purposes.	Ditto	545	163	412	1,120	545	163	412	1,120
Correction slip to Chandra's maps of thana Santipore, district Nadia.	Ditto	2	...	1	3	2	...	1	3
Correction slip to the jurisdiction maps of thana Brahamuddin, district Bakarganj.	Ditto	2	...	1	3	2	...	1	3
Reproduction of 16" Cadastral maps of district Bakarganj, Petty Settlement.	Ditto	246	73	186	505	246	73	186	505
Reproduction of ¼" map of Rajshahi for Provincial purposes.	Ditto	425	127	321	873	425	127	321	873
Reproduction of 1" mujmilis (revised from Chandra's maps of Bengal).	Ditto	473	141	378	992	473	141	378	992
Reproduction of 4" maps of Dacca	Ditto	42	12	31	85	42	12	31	85
Ditto of 4" maps of Faridpore	Ditto	125	37	94	256	125	37	94	256
Ditto of tables of conventional signs for 4" mapping.	Ditto	56	16	42	114	56	16	42	114
Departmental reproduction	Ditto ...	12	3	9	24	12	3	9	24
Reproduction of 16" Cadastral maps of mauza Kazirchar, district Bakarganj.	Ditto	1	...	...	1	1	...	...	1
Reproduction of specimen of drawing, etc., for students of the Bengal Land Surveying school.	Ditto	14	4	10	28	14	4	10	28
Reproduction 16" Cadastral sheets for Police Cadre examination.	Ditto	8	2	6	16	8	2	6	16
Reproduction of 16" Cadastral sheets of Char Amanulla, Char Alexander, etc., of Noakhali district, Petty Settlement.	Ditto	34	10	25	69	34	10	25	69
Reproduction of maps for Bengal Survey and Settlement Annual Report, 1915-16.	Ditto	197	59	149	405	197	59	149	405
Reproduction of Union maps of thanas in district Dacca for Collector.	Ditto	25	7	18	50	25	7	18	50
Reproduction of Union maps of thanas in district Dacca for Record-room.	Ditto	2	...	1	3	2	...	1	3
Reproduction map for Dacca Settlement Report ...	Ditto	5	1	3	9	5	1	3	9
Ditto of 1" thana map, district Mymensingh. (for distribution.)	Ditto	10	3	7	20	10	3	7	20
Reproduction of 4" maps of thanas in Bengal ...	Ditto	9	2	6	17	9	2	6	17
Ditto of ¼" District map of Bakarganj ...	Ditto	1	...	...	1	1	...	...	1
Reproduction of 16" village map of Char Bayley in Noakhali district.	Ditto	42	12	31	85	42	12	31	85
Reproduction of Diagram showing sedition in Bengal.	Ditto	1	...	...	1	1	...	...	1
Reproduction of 50' maps of Calcutta and Suburbs for sale.	Ditto	31	9	24	64	31	9	24	64
Reproduction of Jalpaiguri Tea grant maps ...	Ditto	18	5	12	35	18	5	12	35
Reproduction of 1" thana maps of Chandpur and Hajiganj, district Tippera.	Ditto	8	2	6	16	8	2	6	16
Reproduction of 1" map of Rajshahi for Provincial purposes.	Ditto	34	10	25	69	34	10	25	69
Reproduction of ¼" map of Mymensingh for Provincial purposes.	Ditto	68	20	52	140	68	20	52	140
Carried over ...	.....	...	...	...	...	...	...	...	...

APPENDIX II—*concld.*

Statement of sums expended during the year ending 30th September 1917—*concld.*

District and Tract.	Description of work.	Expenditure incurred during the year under report.				Total expenditure from inception to end of the year under report.			
		Direct charges including share of general section, if any.	Share of control.	All indirect charges other than share of control.	Total.	Direct charges including share of general section, if any.	Share of control.	All indirect charges other than share of control.	Total.
1	2	3	4	5	6	7	8	9	10
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.
Brought forward ...	.....	...	...	...	...	...	...	...	...
Reproduction Section—concld.									
Rennells, maps	Reproduction	78	23	58	159	78	23	58	159
Reproduction of 16″ maps of petty estates in district Burdwan.	Ditto	52	15	40	107	52	15	40	107
Cost of a coloured proof map for the Calcutta Police Administration Report.	Ditto	45	13	33	91	45	13	33	91
Reproduction of 24 copies of 16″ maps of Dacca town for record-room.	Ditto	57	17	42	116	57	17	42	116
Reproduction of 16″ maps of Wards Estates, Dihi Mandalsher in Murshidabad.	Ditto	12	3	9	24	12	3	9	24
Reproduction of maps of South Suburban, Maniktala, Tollyganj Cossipore-Chitpur Municipalities for Calcutta Improvement Trust.	Ditto	403	120	305	828	403	120	305	828
Reproduction of 16″ cadastral sheets of Dandra Zamindari Estate in Noakhali for petty settlement.	Ditto	351	105	265	721	351	105	265	721
Reproduction of 5 copies and correction of 985 Vandyke copies of maps of the Comilla Town Survey, district Tippera.	Ditto	32	9	24	65	32	9	24	65
Reproduction of 16″ village maps of Dihi Bali Estate in Murshidabad for the Collector of the district.	Ditto	65	19	48	132	65	19	48	132
Reproduction of reference slips for Cossipore-Chitpur 50′ maps.	Ditto	15	4	12	31	15	4	12	31
Reproduction of Index map of Howrah Town ...	Ditto	1	...	...	1	1	...	...	1
Reproduction of 16″ cadastral sheets of 3 villages in Burdwan district.	Ditto	22	6	13	41	22	6	13	41
Reproduction of 1″ thana maps of district Midnapore for Provincial purposes.	Ditto	47	14	36	97	47	14	36	97
Reproduction of 1″ thana maps of district Tippera for Provincial purposes.	Ditto	78	23	55	156	78	23	55	156
Reproduction of 1″ thana maps of district Noakhali for Provincial purposes.	Ditto	53	15	39	107	53	15	39	107
Reproduction of thana maps of district Bogra for Provincial purposes.	Ditto	38	11	27	76	38	11	27	76
Reproduction of 1″ thana maps of district Burdwan for Provincial purposes.	Ditto	101	30	77	208	101	30	77	208
Reproduction of 1″ thana maps of district Bankura for Provincial purposes.	Ditto	86	25	66	177	86	25	66	177
Reproduction of 1″ thana maps of district Chittagong for Provincial purposes.	Ditto	32	9	24	65	32	9	24	65
Reproduction of 1″ thana maps of district Dinajpur for Provincial purposes.	Ditto	88	26	67	181	88	26	67	181
Reproduction of 1″ thana maps of district Howrah for Provincial purposes.	Ditto	65	19	48	132	65	19	48	132
Reproduction of 1″ thana maps of district Jessore for Provincial purposes.	Ditto	6	1	4	11	6	1	4	11
Reproduction of 1″ thana maps of district Malda for Provincial purposes.	Ditto	59	17	45	121	59	17	45	121
Reproduction of 1″ thana maps of district Rangpur for Provincial purposes.	Ditto	136	40	104	280	136	40	104	280
Reproduction of 1″ thana maps of district 24-Parganas for Provincial purposes.	Ditto	150	45	116	311	150	45	116	311
Reproduction of 1″ thana maps of district Mymensingh for Provincial purposes.	Ditto	10	3	7	20	10	3	7	20
Reproduction of 1″ thana maps of district Pabna for Provincial purposes.	Ditto	18	5	13	36	18	5	13	36
Reproduction of 1″ thana maps of district Bakarganj for Provincial purposes.	Ditto	56	16	42	114	56	16	42	114
Reproduction of 1″ thana maps of district Birbhum for Provincial purposes.	Ditto	53	15	39	107	53	15	39	107
Reproduction of 1″ thana maps of district Nadia for Provincial purposes.	Ditto	96	28	73	197	96	28	73	197
Reproduction of 1″ thana maps of district Darjeeling for Provincial purposes.	Ditto	30	9	22	61	30	9	22	61
Reproduction of 1″ thana maps of district Jalpaiguri for Provincial purposes.	Ditto	77	23	57	157	77	23	57	157
Reproduction of 1″ thana maps of district Rajshahi for Provincial purposes.	Ditto	34	10	26	70	34	10	26	70
Reproduction of 1″ thana maps of district Dacca for Provincial purposes.	Ditto	92	27	70	189	92	27	70	189
Total ...	.....	90,557	20,942	7,159	1,18,658	...	...	...	...
Grand Total ...	.....	2,03,099	47,941	51,790	3,02,830				

APPENDIX III.

APPEN-

Bengal Drawing

For the year ending

REPRODUCTION'

MAPS OF DISTRICTS, ETC.	VILLAGE MAPS.							Miscellaneous.		
	Previously supplied.		Supplied during the year.		Total to date.		Complete or incomplete.			
	Sheet or map.	Copies.	Sheet or map.	Copies.	Sheet or map.	Copies.		Previously supplied.	Supplied during the year.	Total to date.
1	2	3	4	5	6	7	8	9	10	11
BENGAL.										
Bakarganj	940	86,943	46	4,455	986	91,398	Incomplete	2,202	....	2,202
Bankura	...	...	...	...	...	...	...	162	...	162
Birbhum	229	30,388	...	...	229	30,388	Complete ...	...	...	...
Bogra	9	400	...	...	9	400	...	29	...	29
Burdwan	53	1,095	16	1,580	69	2,675	Incomplete	474	...	474
Calcutta	...	...	...	...	...	...	...	45,180	6,657	51,837
Chittagong	9,466	64,488	...	...	9,466	64,488	Incomplete	1,594	...	1,594
Dacca	6,269	8,60,419	1,649	2,44,554	7,918	1,104,973	Complete ...	5,415	...	5,415
Darjeeling	...	...	...	...	...	...	...	1,800	...	1,800
Dinajpur	52	5,163	2	8	54	5,171	Complete ...	195	...	195
Faridpur	7,084	6,85,245	...	...	7,084	685,245	Ditto ...	939	...	939
Hooghly	158	8,027	...	...	158	8,027	Ditto ...	...	...	...
Howrah	...	...	5	200	5	200	...	1,058	...	1,058
Jalpaiguri	2,983	2,33,123	12	240	2,995	233,363	Complete ...	7,639	...	7,639
Jessore	41	4,300	...	...	41	4,300	...	732	...	732
Khulna	66	3,802	...	...	66	3,802	...	15	...	15
Malda	10	1,000	...	...	10	1,000	...	...	...	...
Midnapore	12,676	350,927	3,439	439,185	16,105	790,112	Incomplete	965	...	965
Murshidabad	88	43,779	2	215	90	43,994	...	255	...	255
Mymensingh	6,196	510,544	3,633	292,544	9,829	803,088	...	1,787	...	1,787
Nadia	4	825	...	...	4	825	...	6	...	6
Noakhali	174	15,339	977	100,059	1,151	115,398	Incomplete	1,140	...	1,140
Pabna	42	3,960	...	...	42	3,960	Complete ...	...	...	...
Rajshahi	534	74,997	3,818	324,153	4,352	399,154	Incomplete	1,100	2,925	1,100
Rangpur	...	...	...	...	...	...	...	760	...	760
Tippera	36	2,250	...	...	36	2,250	...	8,188	...	8,188
24-Parganas...	17	867	17	710	34	1,577	...	594	...	594
Cooch Behar	...	...	...	...	...	...	...	2,705	...	2,705
Departmental returns	...	...	...	...	...	...	...	17,049	9,574	26,623
Extra Departmental returns ...	...	...	...	...	...	...	...	56,875	16,449	73,324
Total ...	47,127	2,987,881	13,616	1,407,907	60,743	4,395,792	...	158,858	35,605	194,463

DIX III.

Office Outturn.

the 30th September 1917.

SECTION.

Triangulation chart.			JURISDICTION MAPS 1″=1 mile.						Jurisdiction maps 4″=1 mile.			District maps.		
			Preliminary.			Final.								
Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
102	...	102	9,725	1,400	11,125	...	...	...	...	...	...	556	...	556
63	...	63	1,095	3,000	4,095	...	...	...	...	...	...	50	...	50
63	...	63	148	2,200	2,348	...	...	...	...	...	...	1	...	1
...	...	...	136	1,800	1,936	...	...	...	...	...	...	56	...	56
52	...	52	2,058	3,400	4,468	...	...	...	...	...	...	50	...	50
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	1,500	1,000	2,500	...	...	...	...	...	...	56	...	56
102	...	102	3,150	3,200	6,350	...	...	...	4,015	1,890	5,905	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	768	...	768
52	...	52	1,350	2,800	4,150	...	...	...	600	...	600	56	...	56
102	...	102	705	...	705	150	...	150	3,500	2,245	5,745	556	...	556
52	...	52	1,195	...	1,195	1,800	..	1,800	...	...	...	175	...	175
72	...	72	775	2,000	2,775	...	...	...	...	...	...	50	...	50
52	...	52	450	2,400	2,850	...	...	...	1,155	...	1,155	81	...	81
52	...	52	1,895	200	2,095	2,400	...	2,400	...	...	...	50	...	50
50	...	50	1,545	4,600	6,145	...	...	...	...	...	...	50	...	50
50	...	50	130	2,000	2,130	...	...	...	...	...	...	56	...	56
52	...	52	470	...	470	...	...	...	1,772	...	1,772	550	...	550
52	...	52	3,142	3,000	6,142	...	...	...	...	...	...	50	...	50
102	...	102	540	600	1,140	...	...	...	...	4	4	556	900	1,456
...	...	...	1,305	4,200	5,505	...	...	...	...	...	...	50	...	50
52	...	52	1,400	1,000	2,400	750	...	750	...	...	...	56	...	56
52	...	52	172	1,950	2,122	...	...	...	...	...	...	556	...	556
50	...	50	672	1,000	7,672	...	...	...	...	...	...	56	1,100	1,156
...	...	...	...	4,400	4,400	...	...	...	...	...	...	56	...	56
52	...	52	73	2,600	2,673	...	...	...	24	...	24	556	...	556
52	...	52	2,145	5,400	7,545	1,050	...	1,050	...	...	...	50	...	50
50	...	50	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1,378	...	1,378	34,776	54,150	88,926	6,150	...	6,150	11,066	4,139	15,205	5,147	2,000	7,147

APPENDIX

Bengal Drawing

For the year ending

MAP RECORD

DISTRICTS.	ORIGINAL CADASTRAL AND TOPO MAPS.			REVENUE DIARA AND TOPO MAPS.						TRAVERSE VOLUMES		
	Received.			Received.			Issued.			Received.		
	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.
	Sheets.	Sheets.	Sheets.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.
	27	28	29	30	31	32	33	34	35	36	37	38
BENGAL.												
Bakarganj	6,146	142	6,288	12	...	12	...	...	...	67	...	67
Bankura	514	...	514	4	...	4	...	...	...	7	...	7
Birbhum	311	...	311	51	...	51	...	...	...	5	1	6
Bogra	293	...	293	14	...	14	...	...	...	5	...	5
Burdwan	170	31	201	6	...	6	...	...	...	29	...	29
Calcutta	...	...	...	...	74	74	...	...	...	28	...	28
Chittagong	3,553	...	3,553	20	...	20	...	...	...	42	8	50
Dacca	4,758	2,435	7,193	5	...	5	...	...	...	77	...	77
Darjeeling	549	...	549	11	3	14	...	...	...	19	5	24
Dinajpur	994	...	994	19	...	19	...	...	...	36	4	40
Faridpur	5,905	...	5,905	8	...	8	...	...	...	41	2	43
Hooghly	241	...	241	15	1	16	...	...	...	21	...	21
Howrah	217	...	217	...	...	...	...	...	...	3	...	3
Jalpaiguri	4,884	158	5,042	13	1	14	...	...	...	73	5	78
Jessore	204	...	204	16	...	16	...	...	...	26	...	26
Khulna	429	...	429	2	...	2	...	...	...	16	...	16
Maida	172	...	175	25	...	25	...	...	...	14	3	17
Midnapore	4,438	2,769	7,206	17	...	17	...	...	...	87	...	87
Murshidabad	314	72	386	30	...	30	...	...	...	7	...	7
Mymensingh	5,946	3,379	9,325	60	..	60	...	...	...	53	25	78
Nadia	...	...	...	27	...	27	...	...	...	4	...	4
Noakhali	803	1,030	1,833	5	...	5	...	...	...	16	6	22
Pabna	416	159	575	27	...	27	...	...	...	10	...	10
Rajshahi	507	3,501	4,008	62	...	62	...	...	...	12	40	52
Rangpur	...	...	...	13	...	13	...	...	...	21	...	21
Tippera	2,094	428	2,522	18	...	18	...		...	36	5	41
24-Parganas	422	...	422	43	...	43	...	...	...	47	...	47
Cooch Behar	...	...	...	6	1	7	...	...	...	14	...	14
Ganges Diara (miscellaneous) ...	...	...	...	24	2	26	...	...	...	70	37	107
Sikkim	...	...	...	...	...	...	...	..	...	1	...	1
Hijli	...	...	...	8	...	8	...	...	...	...	...	...
Total ...	44,281	14,104	58,385	561	82	643	...	...	...	887	141	1,028

III—*concluded.*

Office Outturn—*concluded.*

30th September 1917—*concluded.*

AND ISSUE SECTION.

OF ALL KINDS.			FIELD BOOKS.			Calcutta surveys original and fair maps.			Thana trijunction index and traverse, plots, etc.			Traces for reproduction.		
Issued.			Received.											
Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.
Volumes.	Volumes.	Volumes.	Volumes	Volumes.	Volumes.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets	Sheets.
39	40	41	42	43	44	45	46	47	48	49	50	51	52	53
...	...	...	63	...	63	...	...	...	220	...	220	2,372	...	2,372
...	...	...	...	...	...	...	...	...	17	15	32	...	...	...
...	...	...	3	...	3	...	...	...	22	...	22	...	...	...
...	...	...	3	...	3	...	...	...	...	8	8	181	...	181
...	...	...	34	...	34	...	...	...	20	...	20	...	...	...
...	...	...	28	...	28	2,719 1,876	209	(a)459* 1,876†	...	...	...	...	...	...
...	...	...	60	2	62	...	...	...	43	...	43	3,374	...	3,374
...	...	...	127	...	127	...	...	...	316	135	451	...	...	...
...	...	...	32	...	32	...	...	...	61	...	61	...	...	...
...	...	...	4	7	11	...	...	...	35	...	35	212	...	212
...	...	...	38	...	38	...	...	...	438	...	438	...	...	...
...	...	...	68	...	68	...	...	...	9	...	9	...	...	...
...	...	...	3	...	3	...	...	...	2	9	11	...	...	...
...	...	...	97	1	98	...	...	...	303	17	320	...	...	...
...	...	...	2	...	2	...	...	...	25	...	25	...	...	...
...	...	...	35	...	35	...	...	...	95	...	95	...	...	...
...	...	...	7	...	7	...	...	...	33	...	33	...	...	...
...	...	...	196	...	196	...	...	...	388	...	388	176	...	176
...	...	...	2	...	2	...	...	...	20	...	20	266	...	266
...	...	...	86	17	103	...	...	...	308	...	308	...	...	...
...	...	...	1	...	1	...	...	...	24	20	44	...	...	...
...	...	...	3	1	4	...	...	...	29	39	68	90	...	90
...	...	...	4	...	4	...	...	...	37	...	37	...	...	...
...	...	...	44	22	66	...	...	...	47	185	232	...	...	...
...	...	...	11	...	11	...	...	...	35	...	35	...	...	...
...	...	...	27	3	30	...	...	...	16	1	17	...	...	...
...	...	...	35	...	35	...	...	...	54	...	54	16	...	16
...	...	...	23	...	23	...	...	...	...	...	...	...	...	...
2	...	2	74	7	81	...	...	...	246	111	357	...	...	...
...	...	...	2	...	2	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	2	1,112	60	1,172	4,595	209	(a)2,335	2,843	540	3,383	6,687	...	6,687

* Original sheets.
† Fair sheets.

(a) 2,469 original sheets changed into volumes and entered as 74 volumes under the head of "Revenue Diara and Topo Maps."

APPENDIX IV.

Statement showing Traverse Survey and reproduction of maps of the Districts under Settlement.

Name of District.	Traverse Survey.							Reproduction.							Remarks for increase or decrease in expenditure.
	Total area of the district estimated for survey.	Area completed up to previous year	Estimated programme for the year under report.	Area completed during the year under report.	Remaining.	Estimated cost for the year.	Actual cost for the year (including control).	Forecast by the Director of Land Records, Bengal.		Number of sheets received.	Actual number of copies reproduced.	Estimated cost for the year.	Actual expenditure for the year (including control).	Difference between columns 9 and 11.	
								Number of sheets.	Number of pulls.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Square miles.	Square miles.	Square miles.	Square miles.	Square miles.	Rs.	Rs.					Rs.	Rs.		
Mymensingh	...	...	...	...	...	25,500	...	3,050	275,000	3,950	222,544		22,426	+ 900	
Noakhali and Tippera ...	3,201	2,553	750	717	...	42,000	45,803	1,364	93,140	1,423	91,710		4,319	+ 59	
Rajshahi	3,617	(a) 2,566	140	(b) 186	...	28,500	18,094	2,051	234,665	4,569	324,167	(c)	33,729	+ 2,488	
Midnapore	...	...	...	...	...	23,000	...	4,755	517,502	5,927	439,135		32,098	+ 4,172	
Dacca	...	...	...	...	...	...	...	765	78,148	1,656	244,554	15,000	18,521	+ 901	
Jessore	2,900	968	...	...	1,932	35,000	(d) 13,027	...	...	...	...	...	...	...	
Bankura	2,621	965	...	...	1,656	27,500	(d) 7,999	...	...	...	...	...	...	...	

(a) Includes Rajshahi upland area but excludes 10 square miles of Tauzi No. 60 surveyed in season 1915-16.
(b) Including 68 square miles of water area.
(c) The figures in column 7 represent estimated cost for both Traverse Survey and Map-reproduction, as separate estimates for both are not available.
(d) These figures represent the cost of refixing stations in 383 and 110 square miles in districts Jessore and Bankura, respectively.

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REPORTS

ON

SURVEY AND SETTLEMENT OPERATIONS

IN BENGAL

FOR THE YEAR ENDING

30TH SEPTEMBER 1917.

CALCUTTA:

THE BENGAL SECRETARIAT BOOK DEPOT.

1918.

Maximum limit, 30 pages.]

REPORT

OF THE

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS, BENGAL.

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DEPARTMENT OF LAND RECORDS, BENGAL.

No. $\frac{XXIV}{2}$—1551.

FROM M. C. McALPIN, ESQ., I.C.S.,

Director of the Department of Land Records, Bengal,

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,

REVENUE DEPARTMENT.

Dated Calcutta, the 4th January 1918.

SIR,

I HAVE the honour to submit the following report on the Survey and Settlement Operations conducted under the control of this Department during the year ending 30th September 1917.

Introductory.

2. Major operations financed from Imperial funds were in progress in six districts, viz., Dacca, Mymensingh, Midnapore, Rajshahi, Tippera and Noakhali (joint operation). The programme was a small one as the work in the first three districts is now nearing completion. No new district was included in the programme during the year, although it was decided to resume work in Jessore and Bankura and also to commence survey in Nadia in the field season following the year. Altogether 1,211 square miles were cadastrally surveyed against 1,811 square miles in the previous year and 3,602 square miles in 1914-15. Attestation was done in 1,891 square miles and final records were prepared for 3,468 square miles against 3,632 and 5,302 square miles respectively in the previous year.

3. In minor operations also the programme was considerably curtailed for financial reasons as in the previous year. Petty Settlements on the application of parties were, however, numerous and were scattered over several districts, viz., Burdwan, Hooghly, Howrah, Murshidabad, 24-Parganas, Nadia, Khulna, Mymensingh, Bakarganj, Noakhali, Dinajpur and Malda. Altogether 28·01 square miles were cadastrally surveyed and records of 111·85 square miles were finally published.

4. The total area, of which a record-of-rights has now been completed in the Presidency, is 24,404 square miles.

PART I.

Major Operations.

5. **Mymensingh.**—Mr. F. A. Sachse, I.C.S., was Settlement Officer during the year up to the 3rd April 1917 and again from the 6th June to the 21st June 1917. Mr. S. Klingenstein, I.C.S., was in charge from the 29th June to the 28th August 1917, in addition to his own duties as Additional Magistrate. During the remaining periods Maulvi Saiyid Muazzamuddin Husain was Assistant Settlement Officer in charge.

6. *Progress.*—The following statement compares performance with the sanctioned programme in the main items :—

	For the year.		Up to date.	
	Programme.	Performance.	Programme.	Performance.
	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.
Attestation	110	25	6,693	6,423*
Objections	210	154	6,693	6,423*
Janch	910	206	6,693	6,423*
Statistics	1,000	1,151	6,583	6,423*
16" maps	870	1,258	6,283	6,133
Topo maps	1,462	1,948	6,283	4,248
Printing of record ...	990	714	6,183	6,083
Recovery	1,380	1,564	5,955	5,767
Case-work	1,421	1,405	5,022	4,203

* Actual area of estimated area.

During the year attestation, objections, *janch* and statistics were completed. The sanctioned programme for the year was exceeded in maps and recovery. Final copy is behindhand mainly on account of the necessity of keeping work in a large area pending the completion of *diara* resumptions.

Case-work is making good progress. The main items which remain to be completed in the present year are recovery, case-work, topographical maps, and *diara* resumptions.

7. *Expenditure.*—The following statement compares estimated and actual expenditure and rates :—

	Estimated		Actual		Standard Rate.
	Expenditure.	Rate.	Expenditure.	Rate.	
	Rs.	Rs.	Rs.	Rs.	Rs.
Attestation ...	4,927	845	4,571	183	66
Objections ...	6,036	29	741	5	27
Janch	60,866	13*	9,109	44	20
Statistics		6*	3,151	3	10
16" maps		8*	7,262	6	6
Topo maps ...		1*	2,414	1	2
Printing of record ...		33*	49,354	69	54
Recovery	28,716	21	20,573	13	29
Case-work ...	56,776	40	39,182	18	16
Miscellaneous ...	1,394	...	11,186	...	...
Supervision ...	65,904	...	49,750	...	...
Contingencies ...	34,750	...	30,662	...	...
Total ...	2,59,369		2,27,955		

* Estimated rate for whole operations.

The apparently large figures for the cost-rates of attestation and *janch* are due mainly to the small area dealt with, as well as to the intricacy of the tenures, and in attestation also to the large number of disputes in the Kishoreganj Municipality. The increased cost-rate for printing is due to the large number of *khatians*, viz., 449 per square mile. All these figures are, however, mere accidents of the year and will not affect the low cost-rates which have been maintained throughout. The cost-rates of objections, recovery and case-work are below those estimated. On the whole there has been a saving on the estimate during the year under report mainly due to these low cost-rates and to economies in supervision, amongst which may be mentioned that a whole-time Civilian Settlement Officer was not found necessary during the whole year. These savings have enabled the Settlement Officer to spend what was required on the revision of land revenue and *diara* resumption coming under the head "Miscellaneous" in the above statement. The expenditure up to date has been Rs. 38,29,983 against an estimate of Rs. 39,75,719. Both progress and the financial position are satisfactory.

8. *General.*—Further remarks are unnecessary regarding stages other than recovery, case-work and land revenue settlements, except to note that since May the number of printing presses working has been reduced to 5. Seventeen presses are idle and at present are not required by other settlements. This is due to the postponement of the settlement operations in Jessore and Bankura, which have, however, been recommenced in the current year.

9. *Recovery.*—Recovery was pushed on vigorously with the result that over seven lakhs were collected during the year. There remains a balance for the whole operations of nearly six lakhs for collection. One of the most satisfactory features of recovery in this district is the sparing use of the certificate procedure which has been made, but it is under contemplation to issue certificates on the landlords who have failed to pay up their dues.

10. *Case-work.*—Out of a programme of 92,703 tenancies, 63,119 were dealt with under section 105 with the result that the rent-roll involved, viz., Rs. 7,80,549, was increased by 35 per cent. This proportion is larger than the ordinary proportion for a large area but is explained by the fact that over one-half of it is due to increase of rent for increase of area. Pure enhancements, the Settlement Officer explains, were generally given at the rate of two annas in the rupee. On the average each officer employed disposed of about 800 tenancies under section 105 per month. There were appeals in only 249 cases in the year; 112 were disposed of, in which the decision was upheld in 48 and modified in 49.

3,189 cases under section 106 out of 4,319 were disposed of during the year. The main items of interest were the cases regarding the permanence or otherwise of the tenures in the Patiladaha Pargana. Most of these suits were compromised on the landlords recognising the tenants as occupancy raiyats and the tenants admitting the occupancy rights of the sub-tenants by custom. In other cases on appeal to the Special Judge the orders of the Assistant Settlement Officers that *khod* jotes are permanent were upheld or slightly modified. On appeal to the High Court, the appeals were dismissed in two cases and in a batch of four other cases the decision was upset. The result is that a number of these *khod* jotes are declared by compromise to be raiyati holdings, another set are declared to be permanent tenures and a few to be temporary tenures. From the point of view of uniformity the result is unsatisfactory, though it is hoped that practically it will make little difference.

11. *Land Revenue Settlement.*—The revenue of 76 estates covering an area of 36 square miles was revised during the year resulting in an increase of revenue of 76 per cent. mainly due to increase of area. *Diara* resumptions proceeded very slowly and require more vigorous action in the current year.

12. The sale of printed *khatians* fetched about Rs. 33,000 in the year under report.

13. **Dacca.**—Mr. F. D. Ascoli, I.C.S., was Settlement Officer for the first five weeks of the year. He then went on special duty and prepared the Final Report of the operations, which has been submitted to Government. For the rest of the year Babu Kali Pada Maitra, Deputy Collector, was in charge.

14. *Progress.*—The following statement compares the sanctioned programme with performance :—

	For the year.		Up to date.	
	Programme.	Performance.	Programme.*	Performance.
Printing of record...	685	100	3,130 3,130	3,130 3,130
Recovery ...	670	1,334	3,130	3,130
Case-work ...	905	1,960	2,460	2,460

* Programme subsequently revised on actual area.

The result is that the settlement is practically complete except for case-work. The number of cases filed has assumed greater proportions than was anticipated and therefore the settlement proceedings cannot be closed till next financial year.

15. *Expenditure.*—The following statement compares the estimated and actual expenditure :—

	Estimated		Actual		Standard rate.
	Expenditure.	Rate.	Expenditure.	Rate	
	Rs.	Rs.	Rs.	Rs.	Rs.
Statistics ...	...	...	1,474	...	...
Maps ...	...	...	823	...	...
Jamabandi and *Diara* ...	...	...	913	...	...
Printing of record...	65,075	97	7,063	71	54
Case-work ...	17,680	16	33,040	16	16
Computation and recovery of costs	17,420	25	19,126	14	29
Supervision ...	40,000	...	28,182	...	...
Contingencies ...	39,825	...	23,304	...	...
Total ...	1,80,000	...	1,13,925	...	...

The saving is due mainly to the printing done in advance of the programme last year, and partly to economical working. The total expenditure, excluding that on cess revaluation, up to the end of the year under report, is Rs. 23,30,083 against an estimate of Rs. 24,70,000. The financial position is satisfactory.

16. *Recovery.*—Recovery was completed, over 98 per cent. of the raiyati demands being collected amicably during the year. There were at the close of the year 958 demands under certificate with a total demand of Rs. 47,384.

17. *Case-work.*—In all 73,420 applications under section 105 of the Bengal Tenancy Act for the settlement of fair rents have been filed against an estimate of 50,000. 51,451 were disposed of during the year : of these 7,008 were withdrawn or dismissed without trial, 29,873 were compromised and 5,707 decreed *ex-parte.* 7,699 were decreed after contest. The net result was an increase of the raiyati rents by 23 per cent. 56 appeals were disposed of out of 168 instituted during the year or pending from the previous year, in which it is satisfactory to note that the decision of the Assistant Settlement Officer was upheld in 47 cases. The attention of Government was drawn to a High Court ruling (C. W. N. 21, page 427) that in a case concerning the status of a tenure-holder his tenants were proper parties. Instructions were issued accordingly.

1,150 cases under section 106 were disposed of out of 2,015. Of these only 98 were decreed after contest. Most of the cases were of a simple nature. 13 appeals were disposed of out of 20 instituted during the year or pending from the previous year In nine cases the decision of the Assistant Settlement Officers was upheld. 851 *bonâ fide* mistakes under section 108A were dealt with.

18. 187 commutation cases were disposed of during the year ; in 55 cases commutation was allowed, the remainder were withdrawn or struck off or disallowed on the ground of hardship.

19. **Faridpur.**—Only a small sum of Rs. 2,029 remained pending for realisation at the end of the year. The whole of it is under certificate.

20. **Midnapore.**—Mr. A. K. Jameson, I.C.S., was in charge, on his return from leave on the 13th October 1916, up to the end of the year.

21. *Programme.*—The following statement compares the last programme for the whole operations submitted to Government with performance :—

	For the year.		Up to date.	
	Sanctioned programme.	Performance.	Sanctioned programme.	Performance.
Attestation ...	270	267	4,140	4,140
Objections ...	394	276	4,140	4,140
Jamch ...	865	960	4,140	4,116
Statistics ...	1,650	1,228	4,140	3,717
16-inch maps ...	861	1,103	4,140	3,567
Printing of record ...	1,127	920	3,654	3,447
Recovery and final publication.	1,629	1,240	2,908	2,475
Case-work ...	590	862	843	862

Attestation and objections have been completely finished; arrears in *janch* are insignificant and statistics were nearly finished. The other arrears of work are not serious. All the 16-inch maps have been prepared, except in those villages under rent-settlement or *diara* resumption.

22. *Expenditure.*—The following statement compares estimated and actual expenditure and rates :—

Branches of work.	Estimated		Actual.		Standard Rate (adapted to 449 interests and 1,449 plots per square mile).
	Expenditure.	Rate (for whole operations).	Expenditure.	Rate.	
	Rs.	Rs.	Rs.	Rs.	Rs.
Initial recess	4,831	...	...	...	...
Attestation	21,910	94	26,085	98·43	116
Objections	4,533	12	8,080	28·91	36
Janch	38,750	39	40,565	42·25	40
Statistics	23,666	12	13,343	10·86	10
16-inch maps	12,643	5	4,149	3·76	6
Printing of record ...	86,235	64	71,347	77·55	94
Recovery and final publication	40,641	23	29,054	23·43	29
Case-work	21,027	27	14,251	15·53	16
Section 112	13,312	...	14,397	...	...
Diara and *jamabandi* ...	13,374	...	9,800	...	...
Supervision	58,989	...	48,057	...	179
Supplies and services and contingencies.	83,572	...	48,578	...	...
Control	4,165	...	4,165	...	...
Total ...	4,27,648	...	3,31,871	...	...

The figures in columns 3 and 6 have been obtained from columns 10 and 11 of Appendix II to my letter No. III—25-1790 of the 9th March, 1917. There was a slight increase in the cost-rates of attestation and *janch*; the large increase in the cost-rate of objections is owing to the fact that 40 per square mile against 20 in the rest of the district had to be dealt with.

The increase in the cost-rate of printing is more apparent than real as the average number (over 700) of interests dealt with per square mile was higher than the average (449) of the district. There have been savings under various items, particularly under contingencies; part of the savings under that head is due to arrears in binding the record and to short purchases of paper. On the whole there has been an expenditure of just below 25 lakhs against an estimate of 26 lakhs up to date. But the savings will be largely counterbalanced by subsequent excess expenditure. The financial position is, however, satisfactory.

23. *Attestation.*—The programme consisted of the attestation of that part of last year's *khanapuri* area scattered over the thanas Contai, Pataspur, Egra, Ramnagar, Khejri, Bhagabanpur and Sutahata consisting of (1) villages originally included in the cadastral programme for 1913-14, but omitted on account of the distress caused by the floods in the rains of 1913, (2) the Sujamutha Estate and (3) portions of villages included in the Contai Settlement, of which only those portions which appertained to Government and temporarily-settled estates had been taken up in that settlement. Special measures were taken to complete attestation as early as possible. Attestation was, as a rule, easy and the attitude of the parties satisfactory. Only one landlord gave trouble by compelling his tenants to deliver up their rent-receipts to him before attestation, so as to avoid the discovery of the illegal enhancements of rent he had effected.

24. *Other items.*—Objections presented no features of interest. The progress and character of *janch* showed a decided improvement over previous years, whilst the increase in the outturn of statistics during the year was very marked. The Drawing Section has also been fully employed on the miscellaneous mapping required in a settlement.

25. *Recovery.*—The other main features of the settlement during the year were recovery and case-work. In the areas in which work was fully in

progress, Rs. 7,97,075 was the demand of which Rs. 5,93,183 were collected amicably. The Settlement Officer states that the raiyats pay willingly, but that tenure-holders and petty landlords expect, as a matter of course, a certificate to be issued before they think of paying. Contrary to experience, camps for the realisation of arrears in the first block justified their existence.

26. *Case-work.*—Case-work was started at the commencement of the year with two officers. In various estates outstanding disputes were compromised, in particular in the estate of Rai Krishta Chandra Praharaj Bahadur of Belyaberia and in the property of the Mohant of Gopiballavpur. Two questions were carried to the Special Judge ; the one concerned the allowance for differences of measurement and the other the grant of costs to landlords in the case of applications for the settlement of rent. It is understood that the practice of the Settlement Department to allow the one and disallow the other in ordinary cases has been upheld, but that the cases have been carried still further to the High Court. As a result of the applications for settlement of rent, raiyati rates have been increased by 20·8 per cent. Over a lakh of applications have already been filed.

27. *Miscellaneous work.*—Amongst the miscellaneous work done by the Settlement Department, cess revaluation was completed in the thanas in which it was done in the course of the settlement operations by the disposal of certain unimportant appeals. Rent-settlement was going on in 56 scattered Government and temporarily-settled private estates, of which the most important was a group of 18 of the latter in Pataspur at present under the Court of Wards. The remainder consisted for the most part of small resumed *phanridari* police lands. The rent-settlement has been completed in 32 and the rent-roll confirmed in the case of 30 very small estates. Appendix IV does not disclose any increase in those estates, but rather a re-adjustment of rents due to the fact that the former rental was already high. *Diara* resumption made good progress. Rent-settlement, under section 112 of the Bengal Tenancy Act, was completed in the pargana of Silda, with the exception of the hearing of objections, in the first week of October immediately after the close of the year under report.

28. **Rajshahi.**—Mr. W. H. Nelson was in charge throughout the year assisted by charge officer Khan Bahadur Ataur Rahaman, Deputy Collector, and Babu Romesh Chandra Sen, Sub-Deputy Collector, who has subsequently been made a Deputy Collector.

29. *Progress.*—The following figures compare sanctioned programme with performance for the main branches of work :—

	For the year.		Up to date.	
	Programme.	Performance.	Programme.	Performance.
	Sq. m.	Sq. m.	Sq. m.	Sq. m.
Cadastral	420	466*	3,820	3,685*
Khanapuri	420	466*	3,820	3,685*
Preliminary Office work ...	420	466*	3,820	3,685*
Bujharat	420	466*	3,820	3,685*
Attestation	720	666	3,346	3,238
Objection under section 103-A	770	620	3,100	3,038
Janch	740	670	3,130	2,688
Statistics	920	1,269	3,309	2,371
16" maps	872	1,085	2,630	2,115
Topo maps	872	578	2,630	1,920
Printing of record	872	1,251	2,630	1,829
Computation and recovery ...	776	1,350	1,896	1,350
Case-work	869	...	1,380	...

* Actual area of estimated area.

Field-work from cadastral to *bujharat* of the whole area under the operations is now complete. There are, as a matter of fact, only 20 square miles pending in the year's programme of attestation, left over for the relay of the boundaries, at the request of the landlords, according to the Revenue or *diara* surveys. The arrears in *janch* and objection will be rapidly cleared off, whilst in the remaining branches, except topographic maps and case-work, the outturn was considerably in advance of the programme for the

year. Case-work, which could not be conveniently started earlier, has now commenced.

30. *Expenditure.*—The following figures compare estimated and actual expenditure in the main branches of work:—

Branches of work.	Estimated.		Actual.		Standard Rate.
	Expenditure.	Rate.	Expenditure.	Rate.	
	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral ...	49,980	111	40,247	86	115
Khanapuri ...	15,860	38	14,263	31	39
Initial recess ...	7,980	19	5,750	12	18
Bujharat ...	38,220	91	43,041	92	94
Attestation ...	47,520	66	54,694	82	66
Objection under section 103-A ...	20,020	26	9,339	15	27
Janch	17,020	23	10,184	15	20
Statistics ...	9,200	10	4,737	4	10
16″ maps ...	52,320	60	4,414	4	6
Topo maps ...			1,442	2	2
Printing of record			70,585	56	54
Computation and recovery ...	24,832	32	20,680	15	28
Case-work ...	18,249	21	629	...	17
Supervision ...	1,10,060	...	66,707	...	...
Supplies, services and contingencies	42,620	...	57,814	...	...
Jamabandi ...	...	...	137	...	...
Total ...	4,53,881	...	4,04,663	...	...

The savings in the cost-rates of cadastral, *khanapuri* and preliminary recess are due to the easiness of the work. The increase in the cost of attestation is due to the fact that 511 interests per square mile instead of the standard 250 were dealt with. In the cost-rates of subsequent branches of work generally there have been substantial savings due to economical working. In supervision there has been a substantial saving mainly owing to the non-employment of Civilian Charge Officers. There is an increase under the heading Supplies, Services and Contingencies reported to be due to the increased cost of materials.

The working of the year has been economical, whilst on the whole there is a saving of nearly ¾ lakhs on the total estimate up to date.

Both progress and the financial position are satisfactory.

31. *Cadastral survey, etc.*—The last and fifth block came under cadastral survey during the year under report. This consisted of the whole of the Malda *diara* strip and that part of the Murshidabad *diara* which is opposite Malda. The Settlement Officer reports that most of the area has been entirely diluviated since the Revenue Survey, so that village boundaries are often doubtful. The numerous petty landholders and tenureholders, who in other districts form the educated *bhadrolok* class, are absent from this area, and the head raiyats or *mandals* have definite functions and considerable influence. The conditions regarding *abwabs* are the same as in other blocks.

32. *Attestation.*—Attestation was done of the *diara* area of the fourth block. This was provocative of one of the biggest problems of the settlement, viz., the *utbandi* question. An examination of the question had shown that the landlords were in the habit of treating all lands which come into their *khas* possession and which they let out on *utbandi* as subject to section 180 of the Bengal Tenancy Act which, except when the tenant has been in continuous cultivation for twelve years of the same land, deprives an *utbandi* tenant of occupancy right in his *utbandi* lands. This, the Department contended, was incorrect. A meeting was accordingly held at which the leading landlords of Nadia and Murshidabad and neighbouring districts gave their version of what they considered *utbandi* to be and their rights in the matter. The proceedings of the meeting, together with as much literature on the subject of *utbandi* as could be

gathered, were submitted to Government. Government, after consulting the Advocate-General, have now issued orders on the subject. The effect of these orders is to uphold the contention of the Settlement Department that section 180 cannot be suddenly made applicable to, *inter alia*, ordinary raiyati lands which have come into the possession of the landlord by purchase or otherwise. The rules are somewhat elaborate but this is due to the wording of section 180 of the Bengal Tenancy Act. That section could well bear amendment, if only to put a definite stop to the increase of land to which the landlords make it applicable.

There was some difference of opinion as to what *utbandi* is. One landlord deprecated any interference on the ground that they, the landlords, paid Government revenue for their *utbandi* land when fallow, whereas they did not get any rents from fallow *utbandi* lands. A few contended that they were entitled to collect rents for *utbandi* lands even when fallow. The view that the simultaneous fallowing of *utbandi* lands and non-payment of rent was essential to the system has been accepted by Government.

33. *General.*—Regarding the remaining branches of work there is little of interest to remark on. Cess Revaluation continues to make good progress.

34. **Jalpaiguri.**—A balance of Rs. 38,844 in the recovery of the cost of the district operations remained unpaid at the end of the year. Out of this sum Rs. 28,451 is the last instalment from the Cooch Behar State. The balance, viz., Rs. 10,393, represents the total of the demands remaining to be realised by the certificate procedure.

The submission of the Final Report has been delayed on account of the deputation of Mr. Milligan, who had taken up its compilation, to the Cooch Behar State. It is expected that the report will be ready during the current settlement year.

35. **Tippera-Noakhali.**—Mr. W. H. Thompson, I.C.S., was in charge throughout the year, except for six weeks when he was on leave. He was assisted by three Charge Officers, Khan Saheb A. K. Kabiruddin Ahmed, Mr. J. R. Johnson and Babu Kali Mohan Sen. Mr. Johnson has now joined the Indian Army Reserve of Officers and Babu Kali Mohan Sen reverted towards the end of the year. The staff was of the same consistent good quality as in the year previous to that under report.

36. *Progress.*—The following statement compares the sanctioned programme with performance in the main branches of work :—

	For the year.		Up to date.	
	Programme.	Performance.	Programme.	Performance.
Cadastral Survey ... ... *Khanapuri* ... ... Preliminary office work ...	700	745*	2,450	2,284*
Bhujharat	700	758	2,450	2,284*
Attestation	900	935	1,750	1,641
Objections	888	848	1,525	1,554
Janch	888	814	1,525	1,520
Statistics	850	545	850	545
Preparation of 16″ maps ...	850	600	850	600
Topo maps	850	619	850	619
Final records	850	483	850	483
Computation and recovery ...	242	150	242	150
Revision of Land Revenue ...	106	96	106	96

* Actual area of estimated area.

In all the earlier stages the programme has been completed and in attestation, 100 miles has been done in the same year as cadastral survey in advance of the actual (as opposed to estimated) programme. The arrears in the later stages are by no means serious and are due to the rigid method of preparation of the estimated programme on the basis of the financial year. The work is well advanced.

37. *Expenditure.*—The following figures compare the estimated and actual expenditure in the main branches of the work during the year :—

Branches of work.	Estimated		Actual		Standard rate.
	Expenditure.	Rate.	Expenditure.	Rate.	
	Rs.	Rs.	Rs.	Rs.	Rs.
Traverse by Settlement Officer ...	...	...	...	...	55
Cadastral Survey	77,000	110	81,840	110	115
Khanapuri	25,900	37	29,680	40	39
Preliminary office work ...	12,600	18	10,335	14	18
Bujharat	60,200	86	70,014	92	94
Attestation	59,400	66	38,673	42	66
Objections	23,976	27	15,375	18	27
Janch	13,320	15	24,631	30	20
Statistics	12,750	15	4,867	9	10
16" maps	6,800	6	3,219	5	6
Topo maps	...	2	1,105	2	2
Printing of record	45,900	54	27,129	56	54
Computation and recovery ...	4,840	20	2,931	19	29
Supervision	1,12,115	...	74,051	...	179
Supplies, services and contingencies	34,496	...	94,961	...	97
Jamabandi	5,300	...	7,345	...	...
Diara	...	...	760	...	...
Total ...	4,94,597		4,86,916	...	...

There has been a saving of Rs. 7,659-9-1 in the year under report. The most notable economies occur in the cost-rates under the heads attestation and objections, that under attestation being due to the large employment of Revenue Officers. Though the cost-rate does not show it, there has been a considerable economy in printing the final records, as 440 interests per square mile were dealt with against the standard 250. The increase in the cost of *janch* is largely due to the employment of kanungos in the *janch* camps, whose pay would otherwise be debitable to supervision. There have been accordingly large savings in supervision due to this cause as well as to the fact that no Civilian Charge Officers were employed. The increase under the head contingencies is mainly due to expenditure on buildings, part of which belongs to the estimate of a former year. Extra buildings were, however, built at a cost of Rs. 10,000 for the accommodation of the settlement presses. Excluding cess revaluation, the total expenditure up to date is approximately 12½ lakhs against an estimate of 13¾ lakhs for the same period. This is due to economical working and the use of the most up-to-date methods, to the consistently good quality of the Settlement Officer's staff and to a decrease in area. Both progress and the financial position in this settlement are distinctly satisfactory.

38. *Cadastral Survey, etc.*—The third block of 745 square miles was taken up for survey, *khanapuri* and *bujharat*. It stretched in the district of Tippera from a few miles north of Chandpur up to the trijunction of Mymensingh, Tippera and Sylhet. The southern portion of it was a comparatively narrow strip, what was left of the thanas Matlab, Daudkandi and Nabinagar by the Faridpur and Dacca Settlements in the *diara* survey of the Meghna. The northern portion was the triangular 300 square miles of the revenue thana Brahmanbaria, excluding a strip along the Meghna and a block belonging to Chakla Roshnabad. There was also a detached block of about 45 square miles in thana Kashba not included in Chakla Roshnabad. Altogether it was an awkward area, and communications in portions of it were exceedingly difficult. Part of it comprised what may be called the "neglected area" of the district of Tippera, a low-lying part of country near the Meghna intersected by live streams, *beels* and dead river channels with few trees and bad communications, which the District Administration Commission proposed should be formed into a new subdivision. Probably the chief difficulty of the field-season was the *khanapuri* and *bujharat* in the Sarail estate, where each tenant had two or three holdings, which the estate refused to amalgamate and which the settlement staff had to disentagle. It will be remembered that a previous record of this estate was prepared, which was not approved of and

subsequently the landlord's copy was revised. The present Settlement Officer considers that this was due to the methods of the estate. He says "he (the previous Settlement Officer) made a satisfactory survey, and a fairly good record of actual possession, generally wrote down the right man as the cultivator of each plot. But he had to bring his record into line with the landlords' papers. If he had to deal with several holdings in the name of each of the majority of the tenants and met with as many changes of possession by purchasers unrecognised by the landlord as are found to-day, it must have been a task foredoomed to failure without the expedient of field *bujharat* to solve the difficulty."

This belated justification of the previous survey and record is gratifying but occasion might also be taken of it by the Court of Wards to simplify the accounts in this estate. There were few complications of tenure; subinfeudation was much less than in the previous blocks.

An unusual and astonishing feature of the cadastral field season at its outset was the attitude of the tenants in the Brahmanbaria subdivision who tried by criminal complaints and otherwise to put as many difficulties in the way of the work as possible. Two kanungos were assaulted by villagers. In one case a kanungo had given his pony to some one to hold whilst he ran a *partal* line; when he had finished he found the villagers taking the pony to the pound. He stopped them and the villagers instituted a cattle-rescue case and so on. There was no trouble outside the Brahmanbaria subdivision. The people are mostly Muhammadans, very litigious, but more inclined to resort to violence than in the previous blocks. In the "neglected area" education is backward. Relations between landlord and tenant are mostly good. I reproduce the following interesting extract from the Settlement Officer's report regarding fishing and what the cultivators recognise as a weed with German tendencies, viz., the water-hyacinth :—

"Besides agriculture and fishery there are no industries worth the name, but fishing employs large number of Hindus of the fisherman castes and gives many Muhammadans an opportunity of adding to their resources. Boat and seine nets are used in the branches of the Meghna and in some of the *beels*; there are traps of various kinds in all the smaller waterways, and small fish are caught by a variety of instruments operated by single persons who advances across patches of *beel* line towards fixed nets and traps placed at a conveniently narrow exit. The bigger fish are caught by putting down a mass of branches of trees in a selected spot in a *khal* and accumulating plants of the water-hyacinth over them, after a time a net is put round the spot reaching to the bottom of the water. This is looped up about a couple of feet above the water so that it sags down again outside to water level. The water-hyacinth and the branches are removed and the water stirred till in fright the big fish jump and are caught in the sagging portion of the net when they lie half in half out of the water until the fisherman can dispose of them. It is very entertaining to watch a large number of big fish being caught in this way, but the encouragement of the water-hyacinth by these fishermen is bound to lead to trouble. It spreads fast without any encouragement and has within the last two or three years become a dangerous enemy both of the cultivator and the boat-man, yet none can be persuaded to go to the trouble of destroying any of it though the cultivators recognise that it is becoming a scourge and in some places have christened in the "The German." Fresh fish are regularly sent to Comilla and other places on the Assam-Bengal Railway and sometimes even to Dacca and Calcutta. The drying and export of dried fish to Burma is a regular trade in the north-eastern parts of Brahmanbaria. From there also large earthenware vessels in which are preserved in lime several thousands of duck-eggs are exported *viâ* Chittagong to Arracan. There is a small industry in brass work in Brahmanbaria town."

39. *Attestation.*—Attestation of the second block proceeded smoothly. There were few difficulties regarding tenures and practically no rent disputes. The tenants are sufficiently well informed to know their rights and understand both the record and the map with the result that objections numbered 19 to the square mile. The record was changed in 38½ per cent. of the cases. *Janch* was completed in the objection camp before the *Puias.*

40. *Jamabandi.*—Some of the most interesting and not the least valuable work done during the year was in connection with the revision of land revenue. Three typical estates were selected in which to submit proposals to Government and the orders on them have governed the methods adopted in other estates. In a large number of cases the proprietor has a permanent settlement of a share, another a temporary settlement of another share or Government owns a share or both happen. In as many cases as possible the

Settlement Officer contrived to make partitions under Regulation VII of 1822 to the satisfaction of the proprietors. This should considerably simplify the revision of revenue in future years. The final stages of the proceedings are not yet complete and it is therefore useless to quote statistics.

41. *Press.*—Printing was started during the year under report and was rapidly organised. The Settlement Officer has taken particular care to have a proper check of the printed record.

42. *Recovery.*—Recovery during the year was very successful. The novelty of the printed records and maps in the district is much appreciated. A new system of apportionment was introduced based on the difference between the cess recovered and that paid by the landlord or tenant. One advantage of this is due to the fact that the Settlement Officer is undertaking a cess revaluation and a complete double calculation is thereby avoided. A further advantage is that the landlords and tenants understand its simplicity. When no cess revaluation is in progress the Settlement Officer does not recommend the use of the method. He is probably correct. Cess revaluation made satisfactory progress.

43. *Uses of Janch form.*—In this connection I may note that the Settlement Officer has devised a *janch* form, which is prepared at attestation from which attestation *janch* is first done and thereafter cess revaluation, computation and the calculation of certain statistics without further recourse to the record for the figures. The Settlement Officer claims for this innovation that it has saved both time and money as well as the trouble of dealing with bulky records on each occasion. I agree with him.

44. **Inspection of Cadastral Survey and Khanapuri.**—The following statement compares the severity of inspection of cadastral survey and *khanapuri* in the districts of Rajshahi and Tippera-Noakhali :—

District.	Number of linear miles of *partal* per square mile.		Percentage of plots tested in khanapuri.
	By whole staff.	By officer only.	
Rajshahi	3·3	·07	5
Tippera-Noakhali	4·5	·3	7

In both districts the quantity of *partal* is well above the standard of two miles to a square mile, though that done by officers in Rajshahi is not a large amount. The percentage plots in *khanapuri* is not of great account as field *bujharat* supplies a complete test of every plot.

Minor Operations.

45. **Burdwan.**—No new area was added during the year. A very large number of cases (3,256) had been instituted under sections 105 and 106, and they were all disposed of. The work in the Grand Trunk Road was also completed, resulting in a decrease of revenue from Rs. 2,042 to Rs. 1,704, due, it is explained, to relinquishments of holdings in the side lands. One of the objects of the re-settlement was, however, to obtain *khas* possession of as much of the side lands as possible. Too many of the raiyats had occupancy rights to render the result very satisfactory from this point of view. The final report of the settlement requires now to be expedited and the accounts closed.

Babu Satamanyu Mukharji, Deputy Collector, was in charge throughout the year. The Special Settlement office has now closed.

46. **Hooghly.**—All work in the four estates of the previous year was finished, five new estates, with a total area of about five square miles, were however taken up during the year at the instance of the landlords who were in most cases recent purchasers in quest of the lands they had purchased. It is satisfactory that the settlement of one of these estates is almost complete. In two estates sanction was received rather late in the season and field *bujharat* could not be finished according to the original programme. As usual in this settlement there were many *mukarari* and

rent-free claims. About 15 per cent. of the total area was claimed as rent-free and three-fourths of the claims were found to be valid.

Babu Kshitish Chandra Haldar, Sub-Deputy Collector, continued to be in charge of the settlements in this district in addition to his work in the general line. He was assisted by a Settlement-Kanungo in field *bujharat.*

47. **Howrah.**—Three private estates with an area of about three square miles and two Government estates with an area of one square mile were under survey and settlement operations in Howrah. The work is in advance of the programme in the Government estate, but in the private estates it was held up owing to the area being covered with water for three months. The private estates belong to revenue-sale purchasers who want to establish themselves in their new estates on a satisfactory footing. The objections require therefore very careful examination. The case-work in the estate finally published requires to be expedited.

Babu Hangsa Prasad Ray, Sub-Deputy Collector, was in charge of the work in addition to his duties in the general line.

48. **24-Parganas.**—Seven private estates with an area of 11·52 square miles and four Government estates with an area of 18·46 square miles were under settlement. The private estates were commenced in the previous year and are now in the case-work stage except one (viz., Aminpur) where the work had been postponed on the application of the proprietor. The records of the estates are under final scrutiny. A final report was received in respect of estate Chandbati. The disposal of case-work in the remaining estates requires to be pushed through so that their final reports may not be delayed beyond the current year.

The four Government estates comprise the large estate of Kamarpole, the Sundarban lots Manasadwip, second portion, and Shikarpur, second portion, and the third portion of Saugar island. The work in Kamarpole was commenced in 1914 as the previous settlement was about to expire. The rent-roll has been approved and confirmed and the records will very soon be published. The lands of the estate are scattered over 47 villages and in several cases Government owns only undivided shares in the land jointly with private proprietors. The estates in the Sundarbans and the third portion of the Saugar island were taken up at the instance of the Board of Revenue for the purposes of colonisation and management. Fair progress was made and the work is now at the objection stage.

Babu Sudhir Chandra Ghosh, Deputy Collector, was in charge throughout the year. He has now been appointed Assistant Settlement Officer in Jessore but will also look after the final stages of the settlement in the 24-Parganas, excepting the estates in the Sundarbans and Saugar island, which have been placed in the charge of Quazi Muhammad Mohiuddin, Sub-Deputy Collector, at Diamond Harbour.

49. **Nadia.**—No new minor operation was taken up in Nadia under the control of this department. The pending cases under sections 105 and 106 were disposed of during the year. The required final reports were also prepared.

50. **Murshidabad.**—No new operation was taken up during the year and the programme comprised the completion of the last stages of the areas taken up previously. The rent-disputes in estate Bali were very complicated, several legal problems being involved, and it was entirely due to the personal efforts of the Collector, Mr. Prentice, and the Assistant Settlement Officer that the parties were brought to compromise on fair and reasonable terms. As a result, the rents of 1,500 tenancies out of a total of about 2,000 were settled by compromise under section 109C of the Bengal Tenancy Act. Compromises were also effected in other estates under settlement. A large number of cases under section 105 still remained to be disposed of at the end of the year. These, the completion of the recovery of costs in Dihi Bali and Mandalshar and the writing of the final report require now to be accelerated.

Babu Abinash Chandra Banarji, Sub-Deputy Collector, continued to be in charge of the minor settlements in this district throughout the year.

51. **Murshidabad (Fatehsingh).**—The revisional operation taken up in the previous year in Estate Fatehsingh of the Nawab Bahadur of Murshidabad was satisfactorily completed, thanks to the careful organization

of Mr. Nelson and the staff under Khan Bahadur Ataur Rahman who was in charge.

52. **Maintenance of Records in Fatehsingh.**—During the year the terms and conditions on which the certificate procedure should be introduced in the Fatehsingh Estate belonging to the Nawab Bahadur of Murshidabad and the rules for the maintenance of the landlord's copy of the record-of-rights were decided by Government in consultation with this Department. The maintenance of the record has been started subsequent to the expiry of the year under report. It is a novel experiment which will be watched with much interest.

53. **Khulna.**—One Government Estate, Boyarsingha, with an area of 6·3 square miles and two private estates with an area of 13·95 square miles were under survey and settlement operations during the year. There was some delay in the receipt of the traverse sheets from the Director of Surveys, and the cadastral survey could not be started till February. The programme of draft publication and subsequent stages could not therefore be completed, while the attestation of a little over three square miles will have to be done during the current field season.

The most important questions in connection with Boyarsingha relate to (1) the treatment of squatters in unauthorised occupation and (2) the future management of the estate *i.e.*, whether it will be reserved entirely as a spill-area or whether it will be sufficient to colonise it subject to certain restrictions. These questions are under the consideration of Government.

The proceedings in the two private estates are intended to allay the strained feeling now existing between the landlords and the tenants.

The work in the district was in the charge of a whole time Deputy Collector, Babu Rash Behari Mukharji, who was assisted in *khanapuri* and *bujharat* by two kanungos.

54. **Mymensingh (Minor).**—The minor operations in Mymensingh comprised the re-settlement of rent and revenue in 34 Government and temporarily-settled estates which were not ripe for such re-settlement when they were dealt with in the course of the District operations. The records then prepared were first tested by a field-to-field *bujharat*. It is interesting to note that in the estates of the first block, originally dealt with in the field season of 1907-08, corrections were necessary in 10 per cent. of plots. In subsequent blocks only 6 per cent. changes were noticed. Work in one estate was dropped as it was not likely to be remunerative according to the orders of Government, while in the other estates the stage of *jamabandi* was reached. It is expected that the records will be finally published before the end of the current financial year so that the new revenue may be enforced from April next.

The minor operations in Mymensingh were, as usual in such cases, in charge of the district settlement party.

55. **Bakarganj.**—No new estate was taken up during the year. Nothing could be done in the two Government Estates Basudeb Roy and Maniram Sarma, held up for partition proceedings, as final orders on these proceedings were not received. The re-settlement of the temporarily-settled private estate Kalupara was concluded giving an increase of revenue from Rs. 7,187 to Rs. 9,435 or by 31·27 per cent. The raiyati rent was however raised by only 26·72 per cent., viz., 22 per cent. for extension of cultivation and 4·72 for enhancement. The balance of the increase in revenue was due to reduction of middlemen's profits. Case-work was completed in the settlement of Kachupatra taken up at the instance of the landlords.

There was no whole-time officer, but two Deputy Collectors of the general line were in charge, one after the other.

56. **Noakhali.**—The pending appeals in the Government and temporarily-settled estates were disposed of and the operations in them satisfactorily closed. The records of Dandra were finally published and in spite of difficulties arising from the fact that the record was already several years old, Rs. 32,814-13 against a total demand of Rs. 42,842-13 were realised without process and Rs. 4,226-4 only by the Certificate Procedure. The hearing of case work was completed during the year. The balance

of recovery and the writing of the final report are all that are pending now.

The minor operations in Noakhali were in charge of the Settlement Officer of Tippera-Noakhali throughout the year.

57. **Dinajpur.**—One small private estate—the area of which was ultimately found to be only 185 acres—was taken up for survey and record-of-rights. A Deputy Collector of the general line was in charge and the work was practically finished, only a few cases under section 105 remaining pending at the end of the year.

58. **Malda (Mathurapur).**—Attestation in Estate Mathurapur which had been postponed from the previous year was completed. Various complicated questions regarding rights in trees and rent arose and a special arrangement has been made for a careful examination of the objections during the current field season. The work was throughout in charge of the Settlement Officer of Rajshahi.

PART II.

59. **Curtailment of the programme.**—The most salient feature of the year was, as in the previous year, the effect of economies enforced in the Department in consequence of the war. In Government and temporarily-settled estates no re-settlement operations were taken in hand unless there was a likelihood of an increase of revenue sufficient to cover the expenditure in a year. The result was that in a large number of estates summary settlements were made extending the terms of the previous settlements.

In major operations no new district was taken up and consequently the programme was comparatively small. It was, however, recognised that so far as possible a three-party programme should be adhered to as against the four-party programme in the original arrangements approved by Government. It has accordingly been possible to resume the operations in Jessore and Bankura (and the subdivision of Asansol) and also to start survey in Nadia. Preliminary arrangements to commence work in these districts were in hand when the year under report closed.

60. **Survey and Settlement Manual.**—The Survey and Settlement Manual co-ordinating the divergent rules in force in the two parts of the Presidency was approved by Government and published. The Manual has been considerably shortened, technical details being, so far as possible, removed to a separate volume of "Rules and Instructions of the Settlement Department" also published during the year. Both the books are now available to officers as well as to the public. A *Glossary* containing a short description of settlement procedure, etc., is also under preparation for the use of the public and will issue shortly.

61. **Final Reports.**—Three important Final Reports were received and submitted to Government :—

(1) Final Report on the survey and settlement operations in Dacca, by Mr. F. D. Ascoli.
(2) Final Report on the survey and settlement operations in the riparian areas of the Tippera District opposite Faridpur, by Mr. B. C. Prance.
(3) Final Report on the survey and settlement operations in the riparian areas of the Pabna District opposite Faridpur, by Mr. B. C. Prance.

The first report contains a mine of information about the important district of Dacca. All the three reports are available to the public.

Several reports on small estates were also received from 24-Parganas, Noakhali and Nadia.

62. **Training class for candidates for kanungoship.**—There was no training class for candidates for kanungoship as no recruitment was necessary.

63. **Training of junior officers.**—The training in survey and settlement of selected junior officers was given by Mr. W. H. Thompson, Settlement

Officer of Tippera-Noakhali, at Brahmanbaria. 24 officers of the Provincial and Subordinate Civil Services and five Assistant and Deputy Superintendents of Police joined the training camp. There was also a ward of the Court of Wards. It was not possible to spare any officer of the Indian Civil Service for training in survey and settlement.

As in previous years, 50 Sub-Inspectors of Police were deputed for training in the first few stages of survey and settlement work. 24 of them were placed in the charge of Mr. W. H. Nelson, Settlement Officer of Rajshahi, and 26 in the charge of Mr. W. H. Thompson, Settlement Officer of Tippera-Noakhali.

64. **Training of Munsifs.**—Three new Munsifs were deputed by the Hon'ble High Court for the usual training in survey and settlement. Two of them were deputed to the Tippera-Noakhali Settlement and the third to the Rajshahi Settlement. Of the Munsifs who were deputed previously, eight reverted to the Judicial Department after completing their 18 months' period of training.

65. **Jurisdiction.**—54 notifications involving changes in the jurisdiction of police-stations were issued during the year and they were all examined by this Department before issue. It has not, however, been possible to give effect to the new rules regarding issue of correction slips in respect of police notifications published prior to January 1917, but arrangement has been made to complete the corrections in the Jurisdiction Lists so as to show police-stations in all cases.

New or revised Jurisdiction Lists prepared by the Settlement Officers for 14 thanas were published during the year. They are available to the public at the usual price.

66. **Maintenance of Boundary Marks.**—Appendix X shows that out of a total of 33,208 boundary marks, 20,109 were inspected. These figures exclude the marks placed in the course of district operations except in Chittagong and Bakarganj. In Chittagong a regular system of inspection through Khas Tashildars and their staff has been organised and good work was done by them during the year. In Bakarganj the boundary marks were properly taken care of by the Police and other agencies, although the return shows only a small number as inspected by officers in zamindari estates. Proposals for adopting a similar course in Jalpaiguri have been approved and it is hoped that preliminary arrangements will be completed in the course of the current year so that the new rules in the Survey and Settlement Manual and the Chaukidari Manual may be systematically followed in future. Such preliminary arrangements are also pending in Faridpur and the Collector is taking steps to obtain sanction for a temporary establishment to complete them. In Dacca the registers were, in November last, made over to the Collector who has now to make arrangements for placing the marks in charge of the Daffadars and others according to the rules. The Settlement Officers of other Major Settlements have not yet completed their mark-mujmilis and registers or handed them over to the Collector.

In Government and temporarily-settled estates 227 damaged or missing marks were repaired or restored at a cost of Rs. 355. The bulk of the cost was met from the Commissioner's grant for Khas Mahals, while in a few cases when private persons were found responsible it was realised from them.

A total sum of Rs. 542-15-3 was spent in replacing marks in wards and zamindari estates. Out of this sum, Rs. 340-15-3 were met from the provision of Rs. 500 made in the budget for 1916-17 for expenditure out of advance recoveries under section 114 of the Bengal Tenancy Act; and the balance was realised from private persons found responsible for the loss of the marks.

67. **Utilisation of settlement records and maps.**—It is gratifying to read the reports of the local officers which indicate a rapidly growing tendency to utilise the record-of-rights and maps in all branches of the adminstration. In Chittagong the settlement records have long established their popularity. In Bakarganj, in spite of the fact that the records are already 10 to 15 years old, no less than 19,286 applications for copies of records and connected papers were received during the year. A larger number of applications was, it would appear, filed in the previous year, but the decrease is attributed by the Collector mainly to the increase in the cost of the copies

under recent orders. The use of the settlement records is fairly established in Bakarganj as well as in Faridpur and Jalpaiguri. In Dacca the Collector reports that " the final *parchas* have gone a great way in reducing the number of cases under section 145, Criminal Procedure Code." In Mymensingh, Rajshahi, Midnapore and Noakhali, where district operations are still in progress, the settlement records have already begun to prove their usefulness in revenue and judicial work, although it is reported from Mymensingh that the parties have not yet sufficiently appreciated their value.

Settlement records in other districts, where only small and scattered areas have been brought under operation, are utilised in Civil and Criminal Courts as well as by the Police so far as possible.

Arrangements were made during the year to print up-to-date lists of areas of which records-of-rights are completed and distribute them amongst the Sub-Registrars concerned through the Inspector-General of Registration and the Civil Courts concerned through the District Judges. This will facilitate the working of the Government order requiring reference to settlement maps and records in documents presented for registration and also of sections 103B(3), 111, 147(B), 148(B1) and (B2) of the Bengal Tenancy Act.

Appendix XI shows that no less than 7,316 copies of village maps and 1,222 copies of thana maps were sold to the public during the year. The extent to which these maps have been found useful by the various branches of the administration can be gauged from the fact that 4,003 copies of thana maps and 7,481 copies of village maps were issued on the public service.

68. **Diara Proceedings.**—28 cases of resumption of alluvial accretions under Act IX of 1847 were dealt with during the year. 25 of these cases were finally disposed of and three only remained pending for the hearing of objections preferred before the Board of Revenue.

Besides the above, final orders of the Board were received also in 15 cases of Bakarganj which had been kept pending for the result of certain investigations regarding the possibility of relaying Lieutenant Hodge's maps.

Intimation was received of six more civil suits instituted in Bakarganj against certain *Diara* Proceedings of that district. Of the suits disposed of so far, all, excepting two, have been decided by the Lower Courts in favour of Government.

The most important *diara* inquiry which engaged the attention of this Department was that relating to the river Jamuna along the western boundary of Mymensingh. The matter is now under the consideration of the Board of Revenue.

The *diara* operations carried on by the Settlement Officer of Dacca were concluded during the year and the final approval of Government, dated 2nd May 1917, was published in the *Calcutta Gazette.*

69. **Judicial work of the Director.**—Rent-rolls of 162 Government and temporarily-settled estates were confirmed under section 104F of the Bengal Tenancy Act. 123 appeals, under section 104G, were received, out of which 42 were modified, 11 dismissed, 1 remanded and 69 kept pending for disposal locally in the current cold weather.

70. **Deputation to Military duty.**—One officer of this Deparment, Mr. J. R. Johnson of the Provincial Executive Service, obtained a commission in the Indian Army Reserve of Officers and joined the Military Department. Several employees in the Midnapore Settlement Office also joined the Bengali Regiment.

Three Kanungos, namely, Babu Mohini Mohan Chakrabarti (since appointed a Probationary Sub-Deputy Collector), Babu Harendra Nath Mukharji and Babu Makhan Lal Banarji were selected as Assistant Recruiting Officers and joined the Military Department for about six months.

Major J. C. Jack (I.C.S.), who was formerly the Director of Land Records of this Department, has been awarded both the M. C. and the D. S. O. for distinguished services at the front in France.

I very much regret to have to record the death from wounds at the front, while a prisoner, of Mr. R. B. Steele, I.C.S., who was formerly an Assistant Settlement Officer in this Department and at one time Settlement Officer of Jessore. He was attached to the Flying Corps.

71. **Promotions and prospects.**—During the year under report one Sub-Deputy Collector was promoted from the Settlement Department to the Provincial Executive Service, and one kanungo was appointed a Sub-Deputy Collector. The kanungos who had been discharged on the curtailment of the programme in the year previous to that under report were, with the exception of those who have received permanent appointments under Government and a few whom it is undesirable to re-employ, taken back into the Settlement Department immediately after the expiry of the year under report.

72. **Tours.**—All the major operations were visited at least twice, two of them being visited thrice. Of the minor operations four were visited twice and four once. Altogether 96 days were spent on tour during the year.

73. **Settlement staff.**—The maximum Settlement staff in the Presidency consisted of five officers of the Indian Civil Service, 14 Deputy Collectors, 36 Sub-Deputy Collectors, seven Munsifs and 151 kanungos, including Revenue Officers, besides one officer of the Survey of India Department. The Settlement Officers, Messrs. Sachse, Jameson and Nelson, maintained their previous reputation for energy, resource, keenness, common sense and powers of organization. Mr. Thompson continued to organize the Tippera-Noakhali Settlement successfully, paying at the same time particular attention to the necessity of accurate working both in the record and incidentals. On account of the demand of civilians for the Indian Army Reserve of Officers, no civilian charge officers were employed during the year.

It is a matter of extreme difficulty to select from amongst so many other good officers employed particular ones for mention on account of good work done during the year. Amongst them I note the following :—

Deputy Collectors.

1. Babu Kali Mohan Sen.
2. Khan Bahadur Maulvi Ataur Rahaman.
3. Babu Bijoy Bihari Mukarji.
4. Khan Sahib A. K. Kabiruddin Ahmed.
5. Babu Phani Bhusan Mitra.
6. „ Rash Bihari Mukharji.
7. Syed Moazzamuddin Hossain.
8. Babu Karali Charan Gangali.
9. „ Surendra Nath Banarji No. II.
10. Mr. J. R. Johnson.
11. Babu Satamanyu Mukharji.
12. „ Kalipada Maitra.
13. „ Sudhir Chandra Ghose.
14. „ Ramesh Chandra Sen.

Technical Adviser.

1. Mr. I. Newton.
2. Babu Lal Mohan Bose.

Sub-Deputy Collectors.

1. Babu Kasiswar Chakrabarti.
2. „ Abinash Chandra Banarji.
3. „ Jogesh Chandra Mitra.
4. „ Girish Chandra Das.
5. „ Jamini Mohan Ghosh.
6. „ Surendra Nath Sen Gupta.
7. „ Chinta Haran Das Gupta.
8. Babu Pramatha Nath Datta.
9. „ Hira Lal Sen.
10. „ Anath Bandhu Chatarji.
11. „ Rai Charan Pal.
12. „ Amulya Kumar Guha.
13. „ Probhat Chandra Banarji

Babu Mahendra Nath Gupta, Deputy Collector, continued to do valuable work as Personal Assistant.

74. **Conclusion.**—In conclusion I desire to convey the thanks of the Department to the Director of Surveys for the assistance which he has given this Department throughout the year. I also take this opportunity of thanking the Commissioners and the District Officers in whose charge settlements have been proceeding for the help which they have always given the Department.

I have the honour to be,

SIR,

Your most obedient servant,

M. C. McALPIN,

Director of Land Records, Bengal.

APPENDICES.

[*N.B.*—Figures in these Appendices which do not agree with those in the last year's Report are revised figures.]

APPENDIX I.

Progress of Survey and the preparation of a record-of-rights in the Province.

NAME OF DISTRICT.	Area (excluding large rivers).	Reserved forests.		Unsettled waste at the disposal of Government.		Settled area to which the Bengal Tenancy Act has not been extended.		Settled area to which the Bengal Tenancy Act has been extended.			
		Area.	Scale and date of Survey.	Area.	Scale and date of survey.	Area.	Date of cadastral survey under other Acts.	Total.	Area in which a record-of-rights—		
									Has been finally published.	Is in course of preparation.	Remains to be prepared.
1	2	3	4	5	6	7	8	9	10	11	12
Burdwan ...	2,678	...	...	...	...	...	...	2,678	99	...	2,579
Birbhum ...	1,740	...	...	...	...	...	...	1,740	209	...	1,531
Bankura ...	2,621	...	...	...	...	...	...	2,621	51	4	2,566
Midnapore ...	5,407	...	...	...	...	...	...	5,407	2,544	2,372	491
Hooghly ...	1,213	...	...	...	...	...	...	1,213	53	4·35	1,155·65
Howrah ...	510	...	...	...	...	...	...	510	·25	2·75	507
24-Parganas ...	4,844	1,768	...	1,191	...	...	...	1,895	89 51 (d)	24	1,782
Calcutta ...	8	...	...	...	...	8	1911 in respect of 4 square miles.	...	...	...	...
Nadia ...	2,725	...	...	...	...	...	...	2,725	26 26 (d)	...	2,699
Murshidabad ...	2,143	...	...	...	...	...	...	2,143	152	(a) 17	1,974
Jessore ...	2,925	...	...	...	...	...	...	2,925	82	...	2,843
Khulna ...	4,765	2,089	...	...	...	...	...	2,676	246	20	2,410
Dacca ...	2,750	...	...	...	...	...	...	2,750	2,750	...	...
Mymensingh ...	6,356	...	...	...	...	...	...	6,356	5,486	(b) 946	...
Faridpur ...	2,461	...	...	...	...	...	...	2,461	(c) 2,696 (d) 7	...	(e) 10
Bakarganj ...	3,430	131	16″=1 mile. District operations 1905-06.	516	16″=1 mile. District operations, 1905-06.	...	...	2,427	2,427 13·75 (d)	...	...
Chittagong ...	2,492	564	4″=1 mile, District operations, 1888-89.	486	16″=1 mile. District operations, 1888-89.	...	...	1,442	1,374	...	68
Noakhali ...	1,649	..	...	...	...	...	...	1,649	609	783	257
Tippera ..	3,499	...	...	...	...	...	...	3,499	1,186	1,344	969
Rajshahi ...	(f) 3,846	...	...	...	...	...	...	3,846	1,418	1,869	559
Dinajpur ...	4,132	...	...	...	...	...	...	4,132	517·29	...	3,614·71
Jalpaiguri ...	2,924	505	4″=1 mile 1907-08.	...	...	382	4″=1 mile 1907-1910.	2,037	2,037	...	...
Rangpur ...	4,090	...	...	...	...	...	...	4,090	143	..	3,947
Bogra ...	1,359	...	...	...	...	...	..	1 359	53	...	1,306
Pabna ...	1,839	...	...	...	...	...	...	1,839	68 (g)	...	1,648
Malda ...	1,832	...	...	...	...	...	...	1,832	88	9	1,735
Darjeeling ...	1,164	436	4″=1 mile 1905.	22	...	706	Kalimpong 1902-03. Siliguri 1897-98, West Tiste 1906-1907. Act V of 1875	...	...	...	...
Total ...	75,462	5,483	...	2,215	...	1,512	...	66,252	24,403·54 97·75 (d)	7,395·10	34,651 38

(a) Excluding 44 square miles in Pargana Fatehsingh.
(b) Includes diara strips in Rangpur, Pabna, Bogra and Tippera.
(c) Includes diara strips in Tippera and Pabna.
(d) Revisional.
(e) Transferred from Jessore.
(f) Including diara strips of Pabna, Nadia and Murshidabad.
(g) *See* Faridpur for river strips done from there.

APPENDIX II.

General progress in Survey and Settlement work during the year ending 30th September 1917.

DISTRICT OPERATIONS.

Branch of Work.	Units of reports.	Dacca.					Mymensingh.					Midnapore.	
		Date of inception of operations, *i.e.*, of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done. In the year under report.	Work done. Up to date.	Date of inception of operations *i.e.*, of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done. In the year under report.	Work done. Up to date.	Date of inception of operations, *i.e.*, of commencement of traverse survey.	Estimated area in square miles under settlement.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Traverse Survey (under Settlement Officer) ...	Square miles	1st Oct. 1909	3,157(*a*)	...	...	...	1907	6 631	...	...	...	...	...
Cadastral Survey	Ditto	...	...	...	...	3,157	...	...	...	...	6,432	1910	4,133
Khanapuri	Ditto	...	...	...	...	3,157	...	...	...	...	6,432	...	...
	Plots	...	...	...	...	3,389,316	...	...	...	...	5,658,736	...	...
Preliminary Office work	Square miles	...	...	...	...	3,130	...	...	...	...	6,432	...	...
Bujharat	Ditto	...	...	...	...	3,130	...	...	...	...	6,432	...	...
	Plots	...	...	...	...	3,419,917	...	...	...	...	5,699,535	...	...
	Interests	...	...	...	...	1,461,046	...	...	...	...	1,703,921	...	...
Attestation	Square miles	...	...	...	...	3,130	...	...	25	25	6,423	...	...
	Interests	...	...	...	...	1,423,104	...	...	16,000	16,000	1,709,472	...	...
Draft Publication	Square miles	...	...	...	...	3,130	...	...	28	28	6,423	...	...
Objection under section 103A	Ditto	...	...	...	...	3,130	...	...	154	154	6,423	...	...
	Cases	...	...	...	...	43,417	...	...	1,547	1,547	68,017	...	...
Final Office Work—													
Janch	Square miles	...	...	...	...	3,130	...	...	203	206	6,423	...	...
Statistics	Ditto	...	...	...	...	3,130	...	...	1,151	1,151	6,423	...	...
Preparation of 16" maps	Ditto	...	...	...	...	3,130	...	...	1,415	1,258	6,133	...	...
Topographical maps	Ditto	...	...	...	...	...	...	...	1,500	1,948	4,248	...	...
Preparation of final records	Ditto	...	...	100	100	3,130	...	...	1,054	714	6,033	...	...
	Interests	...	...	31,000	35,423	1,415,201	...	...	4,33,482	3,20,679	1,539,519	...	...
Final publication	Square miles	...	...	1,180	1,320	3,130	...	...	1,200	1,200	5,986	...	...
	Ditto	...	...	1,180	1,334	3,130	...	...	1,687	1,564	5,767	...	...
Recovery of costs	Amount—												
	(*a*) Voluntary	...	...	600,000	6,50,179	1,919,171	...	...	800,000	7,20,492	2,498,249	...	...
	(*b*) By certificates	...	...		1,78,064	2,26,627	...	...	...	8,860	11,263	...	...
Section 112	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
Case work under section 108A	Cases	...	...	...	1,960	2,460	...	...	1,176	685	2,184	...	...
,, ,, ,, 105	Do.	...	...	1,000	872	1,131	...	...	...	...	...	...	...
	Tenancies	...	...	70,000	51,451	58,541	...	...	92,703	63,119	1,14,368	...	...
,, ,, ,, 106	Cases	...	...	1,500	1,150	1,344	...	...	4,309	3,189	4,776	...	...

(*a*) Actual area found after survey.

APPENDIX II—*continued.*

General Progress in Survey and Settlement work during the year ending 30th September 1917.

DISTRICT OPERATIONS—*concluded.*

Branches of work.	Units of reports.	Midnapore—*concluded.*			Rajshahi.					Tippera-Noakhali.				
		Programme of the year under report.	Work done.		Day of inception of operations, *i.e.*, of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done.		Date of inception of operations, *i.e.*, of commencement of traverse survey.	Estimated area in square miles under settlement.	Programme of the year under report.	Work done.	
			In the year under report.	Up to date.				In the year under report.	Up to date.				In the year under report.	Up to date.
		15	16	17	18	19	20	21	22	23	24	25	26	27
Traverse Survey (under Settlement Officer) ...	Square miles	...	...	...	1910	3,249(*a*)	...	...	...	...	...	...	...	23
Cadastral Survey	Ditto	...	...		...	...	420	466	3,685	1,913	3,499	745	745	2,284
Khanapuri	Ditto	...	...	4,140	...	...	420	466	3,685	...	...	745	745	2,284
	Plots	...	...	5,953,417	...	...	420,000	393,657	5,070,902	...	...	1,051,813	1,051,813	3,239,402
Preliminary Office Work	Square miles	...	...	4,140	...	...	420	466	3,685	...	...	745	745	2,284
Bujharat	Ditto	246	267	4,140	...	...	420	466	3,685	...	...	763	758	2,297
	Plots	508,303	514,492	5,958,688	...	...	420,000	404,173	5,217,242	...	...	1,096,534	1,096,534	3,318,294
	Interests	120,204	164,697	1,745,763	...	...	105,000	155,821	1,554,740	...	...	316,493	316,493	858,891
Attestation	Square miles	246	265	4,140	...	...	720	666	3,238	...	...	833	935	1,641
	Interests	122,204	164,697	1,745,763	...	...	321,361	340,574	1,459,695	...	...	252,831	280,149	536,376
Draft publication	Square miles	246	267	4,131	...	...	720	644	3,182	...	...	833	913	1,619
Objection under section 103A	Ditto	324	276	4,140	...	...	686	620	3,038	...	...	833	848	1,554
	Cases	13,950	13,950	91,905	...	...	9,600	7,219	46,507	...	...	...	17,888	35,324
Final Office Work—														
Jamch	Square miles	984	960	4,116	...	...	1,118	670	2,688	...	...	619	814	1,520
Statistics	Ditto	1,196	1,228	3,717	...	...	1,394	1,269	2,371	...	...	706	545	545
Preparation of 16″ maps	Ditto	1,196	1,103	3,567	...	...	1,466	1,085	2,115	...	...	794	600	600
Topographical maps	Ditto	...	...	...	..	...	...	578	1,920	...	...	794	619	619
Preparation of final records	Ditto	1,043	920	3,447	...	...	1,807	1,251	1,829	...	...	490	483	483
	Interests	707,000	706,588	1,476,965	...	...	831,220	576,775	759,942	...	...	206,835	198,965	198,965
Final publication	Square miles	1,537	1 240	2,475	...	...	...	1,350	1,350	...	...	101	195	195
Recovery of costs	Ditto	1,537	1,240	2,475	...	...	2,056	1,350	1,350	...	...	101	150	150
	Amount—													
	(*a*) Voluntary	...	593,183	1,026,185	...	...	886,609	583,436	583,436	...	...	131,826	72,168	72,168
	(*b*) By certificates	...	60,802	73,090	...	...		10,983	10,983	...	...	...	297	297
Section 112	Square miles	244	230·60	230·60	...	...	...	...	...	...	...	...	...	...
Case work under section 108A	Cases	652	258	258	...	...	186	160	160	...	...	...	...	...
,, ,, ,, 105	Do.	17,429	5,997	5,997	...	...	1,255	4	4	...	...	...	...	...
	Tenancies	2,431	15,728	15,728	...	...	32,251	155	155	...	...	...	...	...
,, ,, ,, 106	Cases	110,099	207	207	...	...	...	...	...	...	...	...	...	...

(*a*) Including diara strips of Pabna, Nadia and Murshidabad.

APPENDIX II—*continued.*

General Progress in Survey and Settlement work done during the year ending 30th September 1917.

MINOR OPERATIONS.

Branches of work.	Units of reports.	Burdwan.			Hooghly.			Howrah.			24-Parganas.			Nadia.			Murshidabad.		
		Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
				Rs.			Rs.			Rs.			Rs.			Rs.			Rs.
Traverse survey (under Settlement Officer).	Square miles ...	...	...	...	4·35	4·35	132	3·48	3·48		...	...		...	...		...	...	...
Cadastral survey	Ditto ...	...	...	...	4·35	4·35	368	3·48 3·49	3·48 3·49		... 5·68	... 5·68		...	...		...	...	...
Khanapuri	Ditto ...	...	...	...	4·35	4·35	520	3·49	3·49		5·68	5·68		...	...		...	...	...
	Plots	...	...	...	7,588	7,588		...	...		2,481	2,481		...	...		...	...	...
Preliminary office work	Square miles ...	...	...	...	4·35	4·35	188	3·49	3·49		11·57	10·47		...	...		...	...	...
Bujharat	Ditto ...	...	...	...	4·35	2·33	484	3·49	3·49		11·57	10·47		...	...		...	...	...
	Plots	...	...	...	7,588	3,966		...	...		13,581	13,098		...	...		...	...	...
	Interests	...	...	...	2,680	1,280		...	...		4,459	4,316		...	...		...	...	...
Attestation	Square miles ...	...	...	..	4·35	2·33	140	2·53	2·5		11·57	10·47		...	...		...	...	...
	Interests	...	...	...	2,832	1,432		...	...		4,459	4,316		...	...		...	...	...
Draft publication	Square miles ...	...	...	...	4·35	2·33		2·34	2·34		11·57	10·47		...	...		...	...	...
Objections under section 103A	Ditto ...	...	...	...	4·35	2·33	41	...	...		11·57	10·47		...	...		...	...	...
	Cases	309	309	586	286	52		...	...		512	512		...	...		42	42	419
Final Office work—																			
Janch	Square miles ...	1·25	1·25	212	4·35	...	...	·12	·12		24·99	23·89		...	...		7	7	449
Statistics	Ditto ...	...	...	...	4·35	...	...	·27	·27	989	23·43	12·94	8,299	5·63	5·63	999	7	7	
Preparation of 16″ maps ...	Ditto ...	2·30	2·30	145	4·35	...	...	·27	·27		24·99	19·31		...	...		7	7	389
Topographical maps	Ditto ...	...	...	...	...	...	...	..	...		...	...		...	...		...	...	...
Preparation of final records ...	Ditto ...	1·25	1·25	181	1·87	...	...	·27	·27		24·99	1·64		...	...		7	7	1,540
	Interests	837	837		...	...	...	...	...		12,142	600		...	...		...	...	...
Final publication	Square miles ...	3·90	3·90	124	...	...	...	·27	·27		24·99	·64		...	...		7	7	2
Recovery of costs	Ditto ...	...	...	...	...	...	...	...	...		...	...		...	...		25	16	1,666
Casework under section 108A ...	Cases	11	11		2	2		...	...		...	...		...	...				
Ditto ditto 105 ...	Do.	2,531	2,531		558	556		89	1		157	21		271	771				
Ditto ditto 106 ...	Do.	725	725		32	32		23	...		52	41		28	28				
Ditto ditto 112 ...	Do.	...	...	8,949	...	...	210	...	...		...	...		...	...		7,701	1,634	3,388
Ditto ditto 104E(1)	Do.	...	...		...	...		...	...		15	...		...	...				
Ditto ditto 104 ...	Do.	...	...		...	...		...	...		...	...		...	...				
Ditto ditto 109(c) ...	Do.	...	...		...	...		...	...		...	...		...	...				
Revision in temporarily-settled Estates—																			
(*a*) Draft publication section 103A.	Square miles ...	...	...	...	...	...	...	...	...		17·36	17·36		...	...		...	...	...
(*b*) Final publication ...	Ditto ...	...	...	...	...	...	...	...	...		12·78	...		...	...		...	...	...
Total cost ...	Amount Rs. ...	...	...	10,197	...	...	2,083	...	...	989	...	...	8,299	...	...	999	...	...	7,353

APPENDIX II—*concluded.*

General Progress in Survey and Settlement work done during the year ending 30th September 1917.

MINOR OPERATIONS—*concluded.*

BRANCHES OF WORK.	Units of reports.	MURSHIDABAD (FATEHSINGH PARGANA).			KHULNA.			MYMENSINGH.			BAKARGANJ.			NOAKHALI.			DINAJPUR.			MALDA.		
		Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.	Programme of the year under report.	Work done in the year under report.	Cost.
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
				Rs.			Rs.						Rs.			Rs.			Rs.			Rs.
Traverse Survey (under Settlement Officer).	Square miles	...	...	...	2·4	2·4	238	...	...		...	...	...	...	...	...	1·09	·29		...	...	...
Cadastral Survey	Ditto	...	...	...	19·89	19·89	3,457	...	...		...	...	...	...	...	...	1·09	·29		...	...	...
Khanapuri	Ditto	...	...	...	19·89	19·89	1,330	...	...		...	...	...	...	...	...	1·09	·29	175	...	...	...
	Plots	...	...	...	8,122	8,122		...	...		...	...	...	...	...	...	565	565		...	...	...
Preliminary office work	Square miles	...	...	...	19·89	19·89	80	...	...		...	...	...	...	...	...	1·09	·29	27	...	...	...
Bujharat	Ditto	...	...	...	19·89	19·89	1,860	21·5	21·3		...	..	...	...	...	...	1·09	·29	47	...	...	...
	Plots	...	..	...	8,831	8,831		15,000	14,980		...	...	...	...	...	...	470	470		...	..	...
	Interests	...	...	...	2,909	2,909		3,200	4,741		...	...	...	...	...	...	292	292		...	...	...
Attestation	Square miles	...	...	...	19·89	16·33	1,552	21·5	21·3		...	...	...	...	...	...	1·09	·29	25	8	8	1,782
	Interests	...	...	...	2,909	821		3,200	4,741		...	...	...	...	...	...	224	224		2,326	2,300	
Draft publication	Square miles	...	...	...	...	...	...	...	...	2,355	...	...	...	...	...	...	1·09	·29		...	...	
Objections under section 103A	Ditto	37	37	433	...	...	...	21·5	21·3		...	...	...	...	...	...	1·09	·29	14	...	...	...
	Cases	325	325		...	...	...	....	...		...	...	...	...	...	...	...	15		...	...	...
Final Office Work—																						
Janch	Square miles	40	40	832	...	...	...	21·5	21·3		...	...	...	4	4	89	1·09	·29	...	...	...	...
Statistics	Ditto	44	44	52	...	...	...	21·5	21·3		8·75	8·75	8	38	38		1·09	·29	...	...	...	...
Preparation of 16" maps	Ditto	44	44	162	...	...	...	...	...		...	...	...	...	...		1·09	·29	5	...	...	...
Topographical maps	Ditto	44	44	134	...	...	...	...	...		...	...	...	...	...		...	...	...	...	...	...
Preparation of final records	Ditto	44	44	3,234	...	...	...	...	...		14·25	13·75	636	4	4	1,340	1·09	·29	24	...	...	...
	Interests	24,815	24,815		...	...	...	...	...		2,770	2,466		1,039	1,039		...	210		...	...	...
Final publication	Square miles	44	44	...	...	...	...	...	...		14·25	13·75	44	42	42	1,363	1·09	·29	...	...	...	...
Recovery of costs	Ditto	...	...	...	...	...	...	...	...		...	...		42	4		...	...	...	...	...	...
Case work under section 108A	Cases	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...
Ditto ditto 105	Do.	...	...	...	...	...	...	...	...		32	32	195	932	642	1,807	166	115	48	...	...	...
Ditto ditto 106	Do.	...	...	...	...	...	...	...	...		16	16		84	84		1	...		...	...	...
Ditto ditto 112	Do.	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...
Ditto ditto 104E(1)	Do.	...	...	...	...	...	...	21·5	6		...	...	...	...	...	...	...	...	...	...	...	...
Ditto ditto 104	Do.	...	...	...	...	...	...	21·5	11		...	...	...	...	...	...	...	...	...	...	...	...
Ditto ditto 109(c)	Do.	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...
Revision in temporarily-settled estates—																						
(a) Draft publication section 103A.	Square miles	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...
(b) Final publication	Ditto	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...
Total cost	Amount Rs.	...	...	4,847	...	...	8,516	...	...	2,355	...	...	883	...	...	4,599	...	...	365	...	...	1,782

* Including cost of supervision and contingencies.

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APPENDIX III.

Return of disputes and inspections during the year ending 30th September 1917.

District.	Area in square miles cadastrally surveyed during the season.	Personal partal in linear miles.			Independent partal by linear miles.	Total number of plots khanapuried.	Number of plots tested.			Number of boundary disputes decided.	Number of internal disputes decided.	
		By Gazetted Officers.	By Kanungos and Head Inspectors.	By Inspectors.			By Gazetted Officers.	By Kanungos and Head Inspectors	By Inspectors.		During Khanapuri and Bujharat.	During attestation.
1	2	3			4	5	6			7	8	
Major Operations.												
Midnapore ...	...	...	...	...	...	...	...	...	...	15	...	7,746
Tippera-Noakhali (District Operations).	746	226	3,146	...	...	1,051,813	...	74,560	...	59	6,328	3,644
Rajshahi (including diara strips of Malda and Murshidabad.	466	32	1,503	...	...	393,657	325	19,786	...	164	592	3,780
Minor Operations.												
Hooghly	4·35	6	...	10	4·3	7,588	930	...	1,194	...	66	230
Howrah	2·75	5	7·5	...	...	4,281	210	4,281	...	1	127	213
24-Parganas ...	5·68	11·45	...	...	3·70	2,481	232	...	...	1	193	46
Khulna	19·89	4·37	43·31	...	...	8,122	262	648	...	10	333	86
Dinajpur	·29	Chains. 336	...	...	...	565	78	...	...	...	...	33
Malda	...	...	...	...	...	...	...	...	...	5	...	7

APPENDIX IV.

Progress in revision of Land Revenue during the year ending 30th September 1917.

District.	Number of estates under revision.	Total area in acres.	Area in which rent roll has been draft-published.		Objections under section 104E.		Area in which rent-roll confirmed under section 104E.	Effect of the rental of raiyats.								Area in which record-of-rights finally published.	Number of estates in which revision of Land Revenue completed.	Financial result.		Percentage of increase of rent.	Percentage of increase of revenue.
			In the year under report.	Up to the end of the year under report.	Pending for decision.	Decided.		Old rent.	New rent.	Amount of the increase due to—					Amount of decrease due to—				Old revenue.	New revenue.		
										Increase in size.	Extension of cultivation.	Increased fertility of soil.	Rise in prices.	Neighbouring rates.	Decrease in area.	Deterioration of the soil.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
								Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.		
Burdwan	1	...	...	...	...	...	1,692·85	2,042	1,704	...	...	...	...	...	...	...	1,692·85	1	2,042	1,704	...	...
Howrah	2	622	13	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Midnapore	58	26,489	11,729	11,729	8·6	9	545	3,194	3,227	...	...	...	...	...	...	...	...	30	2,926	2,912	...	...
24-Parganas	3	8,724	3	3	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dacca (including diara strips in Tippera).	2	1,280	1,280	76,055	...	...	1,815	2,331	3,287	...	...	...	...	956	...	...	1,920	4	1,663	2,301	41	38
Mymensingh (district operations.)	111	33,250	16,320	50,240	...	394	18,560	26,551	43,321	...	10,481	262	6,028		...	...	36 square miles.	76	21,555	38,000	63	76
Mymensingh (minor operations.)	33	13,590	5,760	5,760	12	93	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bakarganj	3	3,264·82	...	3,022·58	...	...	3,022·58	7,985	10,118	...	1,967	...	...	393	...	...	3,264·82	1	7,187	9,435	26·72	31·27
Tippera-Noakhali ...	36	62,080	96 square miles.	96 square miles.	...	2,846	·75 square miles.	1,479	2,022	70	280	53	35	105	...		...	4	68	191	36	181
Rajshahi	3	348·53	109·47	109·47	...	...	109·47	183	226	...	43	...	...	...	...	...	109·47	1	130	159	23	22

APPENDIX V.

I Return of Rent-settlement work in areas not under revision of Land Revenue during the year ending 30th September 1917.

District.	Commutation under section 40.			Proceedings under section 109(c) (West Bengal Districts only).				Class of tenants.	Proceedings under section 105.										
													Analysis of variation in the case of raiyats.						
													Amount of increase due to—					Amount of decrease due to—	
	Number of cases dealt with.	Commutation allowed.	Commutation refused.	Number of tenants.	Rent according to landlord.	Rent legally payable.	Rent settled by compromise.		Number of tenants for whom a fair rent has been determined.	Former rent.	New rent.	Difference per cent. + or —.	Increase in area, section 52(a).	Prevailing rates, section 30 (a).	Rise in prices, section 30 (b).	Landlord's improvement, section 30 (c).	Fluvial action, section 30 (d).	Decrease in area, section 52 (b).	Permanent deterioration of soil, section 38 (1) (a).
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
					Rs.	Rs.	Rs.			Rs.	Rs.			Rs.	Rs.				
Burdwan	...	...	...	...	...	...	...	.....	2,408	10,385	12,560	+21	...	...	...	...	...	...	...
Hooghly	...	...	...	...	...	...	...	Tenure-holders ...	8	...	41	...	...	...	...	...	...	...	...
								Raiyats	491	3,948	4,737	...	...	...	471*	...	...	...	...
Howrah	...	...	...	...	...	...	...	Ditto	1	7	11	+57·1	2	...	2	...	...	...	...
Midnapore	520	136	384	...	...	...	...	Ditto	9,313	46,684	56,666	+20·80	4,667	16	5,072	14	13	145	...
								Tenure-holders ...	1,563	27,362	31,344	+14·50	...	...	...	...	...	...	...
24-Parganas	...	...	...	...	...	...	...	Ditto	3	577	581	+ ·69	4	...	...	...	...	...	...
								Raiyats	67	2,330	2,403	+ 3·13	20	6	47	...	...	...	...
Nadia	...	...	...	...	...	...	...	Tenure-holders ...	18	300	874	+191·33	...	574	...	...	...	...	...
								Raiyats	101	681	1,498	+119·97	16	814	...	...	...	8	5
Murshidabad	...	...	...	1,467	5,501	5,501	7,798	Tenure-holders ...	9	136	219	+61	...	...	...	...	...	...	...
								Raiyats	999	3,093	3,765	+22	...	...	...	...	...	...	...
Dacca	187	55	132	...	...	...	...	Ditto	43,444	2,85,235	3,52,639	+23	35,840	1,629	30,300	...	...	364	...
								Under-raiyats	1	...	2	...	...	...	...	...	...	...	...
								Tenure-holders ...	9	33	58	+75	25	...	...	...	...	...	...
Mymensingh	...	...	...	...	...	...	...	Raiyats	63,119	780,549	941,583	+55	91,000	...	70,034	...	...	...	...
Rajshahi	...	...	...	48	667	498	667	Ditto	155	2,164	2,434	+12	...	...	270	...	...	...	...
Dinajpur	...	...	...	...	...	...	...	Ditto	115	121	147	+21·41	...	...	26	...	...	...	...

* The remaining increase is due to new assessment.

APPENDIX VI.

Results of appeals during the year ending 30th September 1917.

Name of estate or tract under settlement.	Nature of case.	Pending from previous year.	Instituted during the year.	Disposed of during the year.	Balance pending.	Upheld.	Modified.	Revised.	Cases returned for retrial.
1	2	3	4	5	6	7	8	9	10
Burdwan (minor operations)	Section 105 ...	...	134	134	...	52	11	...	...
	Do. 106 ...	...	46	46	...	15	31	...	...
Hooghly (minor operations)	Section 105 ...	23	23	24	21	17	4	...	...
	Do. 106 ...	4	...	4	...	2	2	...	...
Midnapore	Boundary disputes	1	10	11	...	4	...	7	...
	Fine cases ...	...	3	3	...	3	...	...	...
	Cess	...	46	46	...	10	34	2	...
	Commutation under section 40.	...	28	2	26	...	...	2	...
	Revision ...	1	23	24	...	19	1	2	2
	Diara cases ...	...	4	3	1	3	...	1	...
24-Parganas (minor operations)	Section 105 ...	20	...	...	20	...	...	...	...
	Do. 106 ...	13	3	...	16	...	...	...	...
Nadia (minor operations, ...	Section 105 ...	54	236	...	290	...	...	...	...
Dacca (district operations)	Commutation cases under section 40.	...	14	14	...	12	...	2	...
	Cases under section 105.	2	166	56	112	47	3	2	4
	Cases under section 106.	2	18	13	7	9	1	2	1
	Certificate cases ...	1	...	1	...	1	...	...	...
Mymensingh (district operations.)	Cases under section 105.	82	249	112	137	48	49	6	9
	Cases under section 106.	...	260	84	176	58	17	1	8
Tippera-Noakhali (district operations.)	Boundary disputes	...	12	12	...	7	3	2	...
Rajshahi (district operations)	Fine cases	...	5	5	...	2	...	...	...
	Boundary disputes	8	207	172	43	165	6	...	1

APPENDIX VII.

Nature and number of holdings for which final statistics have been completed during the year ending 30th September 1917.

DISTRICT.	Name of each estate, tract, etc., under settlement.	Area for which final statistics were completed during the year.	NUMBER OF KHATIAN RECORDED IN THE NAME OF, OR FOR—														
			Proprietor.		Rent-free tenure-holders.		Tenure-holders (other than rent-free).	Raiyats at fixed rates or fixed rents.	Rent-free raiyats.		Settled and occupancy raiyats.	Non-occupancy raiyats.	Occupants (of non-agricultural holdings).	Under-raiyats.	Unoccupied lands (including area outside the records).	Lands occupied for public purposes.	Total.
			As private lands.	Not as private lands.	Service.	Others.			Service.	Others.							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
		Square miles.															
Burdwan ...	Government Estate (Grand Trunk Road).	2·65	...	151	...	...	...	...	...	...	153	181	...	35	...	...	...
	Private Estates	1·25	...	1	...	...	15	31	17	196	580	...	...	176	...	1	...
Howrah ...	Private Estates	·27	2	4	...	...	1	50	...	18	95	9	29	96	...	3	304
Midnapore ...	District operations.	1,228	·02	77	...	59·08	169·86	148·94	3·92	42·89	1067·13	15·31	6·09	66,96	41·74	20·34	1,691·28
24-Parganas ...	Private Estates	·66	...	5	...	...	5	51	...	16	286	2	...	56	...	4	415
Murshidabad ...	Ditto ...	7	...	13	...	21	60	60	3	9	2,652	...	...	272	...	...	3,090
Mymensingh ...	District Operations.	1,351	...	26,433	6,355	12,412	34,388	1,649	2,742	1,209	252,789	10,755	4,781	20,177	27,614 acres.	...	375,633
Bakarganj ...	Temporarily-settled estates.	...	...	1	...	...	102	1,344	...	...	1,052	92	...	65	...	2	2,458
Tippera ... / Noakhali ...	District Operations.	546	...	4,908	...	1,026	75,477	15,179	941	230	103,769	4,044	1,613	23,170	18	376	227,751
Rajshahi ...	Ditto ...	1,269	...	6,491	415	20,064	18,538	3,336	4,140	20	267,802	7,845	2,038	121,885	94	16	455,384
Dinajpur ...	Private Estates	·29	...	3	...	...	1	...	...	2	192	3	...	6	...	3	210

APPENDIX VIII.

Progress made in recovery of costs during the year ending 30th September 1917.

Division.	District.	Estate or tract under Settlement.	Demand (outstanding *plus* current.)			Collections.							Balance.		
						Landlord's share.			Occupier's share.						
			Landlord's share.	Occupier's share.	Total.	Voluntary.	By certificate.	Total.	Voluntary.	By certificate.	Total.	Grand total collected.	Landlord's share.	Occupier's share.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
A.—Imperial operations.															
Burdwan	Midnapore	District operations	8,80,208	4,38,525	13,18,733	4,33,940	60,133	4,94,073	1,59,244	669	1,59,913	6,53,986	1,76,257	43,332	2,20,089
Dacca	Dacca (including diara strips in Tippera.)	Ditto	...	...	6,00,000	4,42,644	1,71,510	6,14,154	2,07,536	6,554	2,14,090	8,28,244	...	...	...
Do.	Mymensingh	Ditto	8,00,000	5,00,000	13,00,000	3,24,943	8,860	3,33,808	3,95,544	...	3,95,544	7,29,352	4,66,192	1,04,456	5,70,648
Chittagong	Tippera-Noakhali	Ditto	60,631	47,144	1,07,775	36,719	284	37,003	35,449	14	35,463	72,466	23,628	11,681	35,309
Rajshahi	Rajshahi	Ditto	5,97,629	2,88,980	8,86,609	3,68,067	10,852	3,78,919	2,15,369	131	2,15,500	5,94,419	2,18,780	73,480	2,92,190
B.—Minor operations.															
Burdwan	Burdwan	Petty estates	1,346	1,190	2,536	1,346	...	1,346	1,161	...	1,161	2,507	...	29	29
Presidency	24-Parganas	Private zamindari estates ...	8,836	...	8,836	3,002	...	3,002	...	...	...	3,002	5,834	...	5,834
Ditto	Nadia	Petty zamindari estates ...	55	...	55	55	...	55	...	...	...	55	...	...	...
Ditto	Murshidabad	Private zamindari estates ...	12,571	6,102	18,673	(a) 16,461	...	(a) 16,461	5,433	63	5,496	21,957	2,500	606	3,106
Chittagong	Noakhali	Ditto ...	27,301	15,542	42,843	19,748	3,316	23,064	13,067	910	13,977	37,041	4,237	1,565	5,802

(a) Includes deposits.

APPENDIX IX.

Expenditure for work done (including all Book-debit charges) during the year ending 30th September 1917.

Branches of work.	Dacca.						Mymensingh.						Midnapore.		
	In the year under report.			Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.			In the year under report.		
	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.
Traverse Survey (done by Settlement Officer.)	...	...	...	...	4,002	...	...	...	...	...	...	...	...	...	...
Cadastral Survey	...	...	...	3,157	2,86,355	91	...	...	...	6,432	6,25,847	97	...	...	...
Khanapuri	...	...	...	3,157	1,52,197	48	...	...	...	6,432	2,29,120	36	...	...	...
Preliminary office work	...	...	...	3,130	42,092	13	...	...	...	6,432	1,00,833	16	...	8,447	...
Bujharat	...	...	...	3,130	2,60,195	83	...	...	...	6,432	4,82,102	75			
Attestation	...	...	...	3,130	2,58,974	83	25	4,571	183	6,423	3,94,759	61	265·15	26,085	98
Objections	...	...	...	3,130	40,076	13	154	741	5	6,423	91,794	14	276·30	8,080	29
Final office work—															
Janch	...	...	...	3,130	29,115	9	206	9,109	44	6,423	78,844	12	960	40,565	42
Statistics	...	1,474	...	3,130	73,479	23	1,151	3,151	3	6,423	35,554	6	1,228	13,343	11
Preparation of 16" maps ...	...	823	...	3,130	15,433	5	1,258	7,262	6	6,133	42,536	7	1,103	4,149	4
Topographical maps	...	...	...	...	...	...	1,948	2,414	1	4,248	5,435	1	...	...	...
Final records	100	7,063	71	3,130	1,96,206	63	714	49,354	69	6,083	2,46,447	41	920	71,347	78
Record Binding	...	...	...	...	...	...	1,120	4,598	4	5,852	23,994	4	...	...	...
Computation and recovery	1,334	19,126	14	3,130	65,000	21	1,564	20,573	13	5,767	69,900	12	1,240	29,054	23
Case work	1,960	33,040	16	2,460	38,926	16	2,203	39,482	18	4,203	84,064	20	862	14,251	16
Section 112	...	...	...	...	...	...	...	...	...	...	...	...	230·60	14,397	62
Supervision	...	28,182	...	...	4,24,768	...	...	49,750	...	...	7,86,706	...	...	48,057	...
Supplies, services and contingencies—															
Ordinary	...	23,304	...	...	3,60,259	...	...	26,064	...	...	4,41,093	...	...	31,218	...
Press														17,360	...
Jamabandi	...	...	...	...	29,349	...	...	2,760	...	...	12,854	...	...	5,451	...
Diara	...	913	...	...	25,397	...	...	8,426	...	...	18,065	...	...	4,349	...
Partition	...	...	...	...	8,421	...	...	...	...	...	...	...	...	...	...
Jess revaluation	...	1,406	...	...	65,842	...	...	...	...	...	...	...	...	...	...
Town survey	...	...	...	...	19,839	...	...	...	...	...	...	...	...	...	...
Total Cost ..	...	1,15,331	...	...	23,95,925	...	...	2,27,955	...	...	37,69,947	...	...	3,36,153	...

Including Rs. 8,558 for the survey of Mymensingh, Tippera Diara area.

APPENDIX IX—*concluded.*

Expenditure for work done (including all Book-debit charges) during the year ending 30th September 1917—*concluded.*

Branches of work.	Midnapore—*concluded.*			Rajshahi.						Tippera-Noakhali.					
	Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.			In the year under report.			Up to the end of the year under report.		
	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.	Area.	Cost.	Cost-rate.
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.
Traverse Survey (done by Settlement Officer).	...	...	...	...	...	...	...	...	...	..	...	..	23	321	14
Cadastral Survey	4,140	5,34,227	129	466	40,247	86	3,685	3,64,167	99	745	81,839	110	2,284	2,52,289	110
Khanapuri				466	14,263	31	3,685	1,80,817	49	745	29,680	40	2,284	94,699	42
Preliminary office work	4,140	2,03,823	49	466	5,750	13	3,685	49,726	13	745	10,335	14	2,284	35,609	16
Bujharat				466	43,041	92	3,685	3,90,450	106	758	70,014	92	2,284	2,02,861	89
Attestation	4,140	3,94,179	95	666	54,694	82	3,238	2,76,071	85	935	38,674	42	1,641	81,554	50
Objections	4,140	50,855	12	620	9,339	15	3,038	47,212	16	848	15,375	18	1,554	27,051	17
Final office work—															
Janch	4,140	1,60,802	39	670	10,184	15	2,688	53,704	20	814	24,631	30	1,520	46,964	31
Statistics	3,717	29,713	8	1,269	4,737	4	2,371	19,233	8	545	4,867	9	545	8,156	15
Preparation of 16" maps ...	3,567	10,685	3	1,085	4,414	4	2,115	12,262	6	600	3,249	5	600	3,298	5
Topographical maps	...	...	...	578	1,442	2	1,920	7,695	4	619	1,105	2	619	1,402	2
Final records	3,447	1,86,991	54	1,251	70,585	56	1,829	1,11,485	61	483	27,129	56	483	27,129	56
Record Binding	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Computation and recovery	2,475	47,023	19	1,350	20,680	16	1,650	22,292	14	150	2,931	20	150	2,931	20
Case work	862	14,251	16	...	629	...	...	629	...	...	...	...	...	...	...
Section 42	230·60	27,689	120	...	...	...	...	...	...	...	...	...	...	...	...
Supervision	...	3,36,463	...	...	66,707	...	...	3,81,977	...	...	74,051	...	...	2,13,630	...
Supplies, services and contingencies—															
Ordinary	...	3,35,317	...	...	57,814	...	...	4,05,652	...	...	76,787	...	...	2,33,404	...
Press	...	1,08,456	...	...							18,175	...	...	18,175	...
Jamabandi	...	5,451	...	...	137	...	...	137	...	96	7,345	76	96	8,070	84
Diara	...	5,542	...	...	...	...	...	...	...	11	760	69	11	760	69
Partition	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cess-evaluation	...	14,466	...	...	10,256	...	...	31,603	...	...	12,644	...	...	16,028	...
Town Survey	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total cost ...	...	24,66,198	...	...	4,14,919	...	...	23,55,312	...	...	4,99,562	...	...	12,74,311	...

APPENDIX X.

Result of inspection of Survey Marks during the year ending 31st March 1917.

Division and District.	Total number of estates surveyed under the Survey Act or Bengal Tenancy Act.	Total number of estates in which permanent boundary marks were erected.	Number of marks erected in estates mentioned in column 3.	Number of marks inspected during the year under report.	Result of inspection of marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
Government Estates and Temporarily Settled Estates.										
Burdwan ...	...	17	376	205	133	57	15	...	.....	
Birbhum ...	3	3	14	14	14	...	...	...	.....	
Burdwan ... Bankura ...	7	7	30	29	29	...	...	1	.....	
Midnapore ...	91	91	5,092	4,243	4,007	88	148	...	Rupee 1.	
Hooghly ...	72	25	794	730	703	...	27	22	Rupees 116 met from Khas Mahal grant.	
24-Parganas ...	30	29	2,338	1,845	1,749	64	32	...	.....	
Nadia ...	49	32	1,076	1,048	1,025	1	22	...	.....	
Presidency ... Murshidabad ...	71	61	958	958	711	33	214	167	Rupees 1927.	
Jessore ...	...	7	63	52	50	2	...	2	Rupees 4 met from Khas Mahal contingencies.	
Khulna ...	26	22	317	249	213	9	27	6	Rupees 12-8 met from Commissioner's grant.	
Dacca ... Bakarganj ...	174	111	345	221	168	2	51	...	.....	
Mymensingh ...	24	2	458	388	308	60	20	...	.....	
Chittagong ...	5	5	2,803	913	583	26	304	2	Rupees 6.	
Chittagong ... Tippera ...	142	142	367	139	76	41	21	26	Rupees 5 paid by party.	
Noakhali ...	...	...	...	174	171	3	...	...	.....	
Malda	30	25	237	231	221	1	9	1	Rupees 22-0-6.	
Rajshahi ... Bogra	2	2	478	135	120	15	...	...	.....	
Pabna	5	5	10	10	...	...	10	...	.....	
Darjeeling ...	4	3	193	193	193	...	...	...	.....	
Total ...	735	589	15,939	11,776	10,474	402	900	227		
Wards' Estates.										
Bankura ...	23	23	433	247	245	2	...	...	.....	
Burdwan ... Midnapore ...	2	2	1,705	1,701	1,317	4	380	134	Rupees 30) (a)	
Hooghly ...	2	2	35	32	32	...	...	...	.....	
Presidency ... Jessore	1	1	117	49	35	...	14	...	.....	
Dacca ... Bakarganj ...	3	3	1,096	1,096	1,057	5	34	...	.....	
Chittagong ... Tippera ...	1	1	3 054	468	292	141	35	176	.....	
Rajshahi ... Dinajpur ...	1	1	24	19	19	...	...	...	.....	
Malda	2	2	125	125	125	...	...	...		
Total ..	35	35	6,590	3,737	3,122	152	463	250		
Zamindari Estates.										
Burdwan ...	18	68	393	279	266	7	6	8	.....	
Bankura ...	61	61	299	291	265	7	29	...	.....	
Burdwan ... Birbhum ...	69	69	720	720	720	...	...	...	Rupees 15-2 (a).	
Midnapore ...	3	3	369	302	118	6	178	178	.....	
Hooghly ...	68	57	324	269	259	1	9	...	.....	
24-Parganas ...	45	40	383	69	69	...	...	...	.....	
Murshidabad ...	16	11	1,674	1,674	1,520	...	154	7	Rupees 25-13-3 (a)	
Presidency ... Nadia	2	2	37	37	37	...	...	...	.....	
Jessore	1	27	555	34	34	...	...	...	.....	
Khulna	...	6	345	57	57	...	...	...	.....	
Dacca ... Bakarganj ...	3,025	3,025	4,507	13	11	1	1	1	Rupees 20 met from fine,	The person removing the pillar was fined Rs. 20.
Malda	4	4	494	494	424	...	70	70	Rupees 182 met by zamindars.	
Rangpur ...	17	10	302	25	22	2	1	...	.....	
Rajshahi ... Pabna	15	10	218	218	176	...	42	...	.....	
Dinajpur ...	1	1	659	114	114	...	...	...	.....	
Total ...	3,315	3,389	11,279	4,596	4,082	24	490	264		
Grand Total	4,115	4,023	33,208	20,109	17,678	578	1,853	741		

(a) Met from Director of Land Record's grant out of advance recoveries made under section 114(2), Bengal Tenancy Act.

APPENDIX XI.

Statement showing maps in stock received and sold during the year ending 31st March 1917.

Particulars.	Number of copies.	Value.	Number of maps of which there are less than four copies in stock.
1	2	3	4
		Rs. A. P.	
District maps—			
Balance on the 1st April 1916 ...	161	...	..
Additions during the year ...	47	...	...
Total ...	208	...	...
Issue on public service ...	9	...	...
Issue by sale	12	4 8 0	..
Total ...	21	...	...
Balance on the 31st of March 1917	187	...	...
Thana maps—			
Balance on the 1st April 1916 ...	26,402	...	...
Additions during the year ...	4,247	...	...
Total ...	30,649	...	...
Issue on public service ...	4,003	...	...
Issue by sale	1,222	487 12 0	...
Total ...	5,225	...	...
Balance on the 31st of March 1917	25,424	...	...
Village maps—			
Balance on the 1st of April 1916...	327,319	...	...
Additions during the year ...	162,219	...	...
Total ...	489,538	...	...
Issue on public service ...	7 481	...	...
Issue by sale	7,316	1,731 2 0	...
Total ...	14,797	...	...
Balance on 31st March 1917 ...	474,741	...	...

B. S. Press—22-1-1918—2299J—325—S. C. R.

GOVERNMENT OF BENGAL.

REVENUE DEPARTMENT.

Land Revenue.

CALCUTTA, THE 11TH FEBRUARY 1918.

RESOLUTION—No. 1464L.R.

READ—

The Survey and Settlement Reports for the year ending 30th September 1917.

WAR economy restricted the operations of the Survey and Settlement Departments, and no new district was taken up for major operations. In Government and temporarily-settled estates no resettlements were undertaken unless there was a likelihood of an increase of revenue sufficient to cover the expenditure within a year. The result was a large number of summary settlements extending the terms of previous settlements.

It was, however, realized that unless new operations were undertaken, the highly trained staffs of the Survey and Settlement Departments would have to be disbanded, and the greatest difficulty would be experienced not only in finding employment for the permanent staff and establishment, but also in reconstituting the departments when normal conditions returned. The Governor in Council, therefore, while giving full weight to the need for economy, came to the conclusion that sufficient work should be provided in future to ensure the continuous employment of three survey and settlement parties. Accordingly arrangements were made during the year to start the traverse survey of Nadia district at the end of 1917 and to resume the operations in Jessore and Bankura, the Asansol subdivision of Burdwan district being combined with Bankura for the sake of expediting the preparation of up-to-date maps in the coal district.

2. The traverse operations comprising 903 square miles were mainly carried on in Tippera district, and in the Ganges diara in connection with the settlement operations in Rajshahi. An area of 717 square miles in thanas Muradnagar, Chandina, Comilla, Laksam and Chaudagram was surveyed in Tippera. This completed the traverse survey of the district. The traverse survey of the third and last block of 186 square miles of the Ganges diara, including the *chars* and low lands in the districts of Murshidabad and Malda, was also completed. Lost stations in parts of Bankura and Jessore districts traversed in 1914-15 were re-fixed in an area of 493 square miles in view of the inception of cadastral operations in those districts in the present field season.

3. Considerable progress was made in comparative mapping of diara areas and plotting for jurisdiction maps. There was an output of over a million and a half of copies of cadastral village maps in addition to the production of standard sheets for 3,786 square miles. Miscellaneous work connected with the survey and mapping of municipalities and scattered areas in various parts of the Presidency was also undertaken.

4. The Government Survey School near Comilla was put on a permanent basis. Exclusive of the ordinary students five district Kanungos and seven selected candidates for Kanungoship completed their course of training. The result of the annual examination was satisfactory.

5. As a result of deputation at the India Office in 1916, Major Hirst compiled a fuller and revised edition of a memoir of James Rennell's surveys of Bengal made between the years 1764 and 1777 in which the technical value of Rennell's maps is examined. The memoir is illustrated by a new atlas containing important unpublished maps by the first Surveyor-General of India.

6. Major cadastral and settlement operations were in progress in Dacca, Mymensingh, Midnapore, Rajshahi and Tippera-Noakhali. Altogether 1,211 square miles of country were cadastrally surveyed against 1,811 square miles in the previous year. Records for 1,891 square miles were attested ; and final records for 3,468 square miles were prepared against 3,632 and 5,302 square miles, respectively, in the previous year. In minor operations 28 square miles were surveyed and records of 112 square miles were finally published. The total area for which a record-of-rights has been completed in the Presidency is 24,404 square miles.

The settlement of Dacca district is practically completed, but cannot be closed yet on account of an abnormal accession of case-work. The diara operations in Faridpur, Dacca, Pabna and Tippera carried out by the Settlement Officer of Dacca were approved and gazetted in Notification No. 442T.R., dated the 2nd May 1917.

In Mymensingh attestation, disposal of objections, final scrutiny of the record and compilation of statistics for the whole district were finished. Fair progress was made in most of the other branches of work. Over 63,000 cases for settlement of fair rents were decided, the landlords obtaining the substantial increase of 35 per cent. on their existing rental mostly on the ground of assessment of excess areas. The long-standing disputes relating to the nature of the *jotes* in Patiladaha pargana were settled. Most of the suits were compromised : the landlords on their part recognized the tenants as occupancy raiyats, while the tenants admitted the occupancy rights of the sub-tenants by custom. In a few cases the *jotes* have been declared on appeal to be permanent or temporary tenures. The revision of land revenue in 76 estates with an area of 36 square miles was effected, resulting in an increase of 76 per cent., mostly due to increase of area.

Attestation and disposal of objections were finished in Midnapore, and it is hoped that the settlement in this district will be completed in the financial year 1918-19. The year's result of applications for settlement of fair rents in zamindari areas was an increase 20 per cent. in the rent of cultivating tenants. Good progress was made in diara resumption.

Field work from cadastral survey to *bujharat* (field-to-field verification of map and record) is now complete for the whole of Rajshahi. In the course of attestation of the diara area of the fourth block there came up for decision the contentious question of the status of *utbandi* tenants, to which allusion was made in last year's resolution. Landlords were found to be in the habit of letting out all lands which came into their *khas* possession as subject to section 180 of the Bengal Tenancy Act. The Director of Land Records discussed the question at a meeting with the leading landlords of Nadia, Murshidabad and neighbouring districts ; and Government after consulting the Advocate-General have approved of rules for dealing with *utbandi* tenancies during settlement operations. Stated very briefly the position is as follows : an *utbandi* tenant under certain special conditions stated in section 180 of the Bengal Tenancy Act is restricted in his acquisition of occupancy rights : the rules seek to ensure that tenants designated as *utbandi* tenants shall only be restricted in their rights where the incidents of their tenancies make the term *utbandi* truly applicable and where those special conditions in fact exist.

In Tippera-Noakhali the work is well advanced. The physically awkward area of 745 square miles comprised in thanas Matlabbazar, Daudkandi, Nabinagar, Brahmanbaria, and Kasba passed the stages of survey, preliminary record-writing and attestation. Much difficulty was found in dealing with the lands of the Sarail Ward's Estate, where most of the tenants had several unamalgamated holdings within one estate. Attestation in the second block (Lakhmipur, Ramganj, Hatiya in Noakhali and Chandpur and Hajiganj in Tippera) proceeded smoothly.

7. Recovery of costs progressed successfully in the five major settlements, the amount collected being Rs. 28¾ lakhs out of Rs. 37¾ lakhs outstanding at the beginning of the year in the six districts concerned. Over 98 per cent. of the demands against raiyats was amicably paid in the Dacca

district. Coercive measures were sparingly used in Mymensingh, and indeed, except in Midnapore against tenure-holders and petty landlords, were not required to any considerable extent. A sum of Rs. 14,153 on account of the completed settlements of Faridpur and Jalpaiguri remained to be realized by certificate procedure.

8. Satisfactory progress was made with cess revaluation undertaken by the Settlement Officers of Rajshahi and Tippera-Noakhali.

9. It is evident from his careful financial analysis of each settlement that the Director has, as in previous years, kept close watch over expenditure; and His Excellency in Council notes with satisfaction that in no case has it exceeded the estimate, while at the same time the progress of work has been maintained in accordance with programmes. During the year Government dealt with the Director's report on the increase in expenditure in Midnapore settlement as compared with the sanctioned estimate. It disclosed the fact that the incidence of the actual total number of plots and interests was 1,449 plots and 449 interests to the square mile against 1,294 plots and 339 interests on which the original estimate was based. This increase of 32 per cent. in the number of interests apart from the increased number of plots was large enough to vitiate the sanctioned estimate. A revised estimate based on actual data was sanctioned.

10. The revision of the record-of-rights of the Fatehsingh Estate belonging to the Nawab Bahadur of Murshidabad was completed. The landlord's copy of this revised record will henceforth be maintained at the Nawab Bahadur's expense by Government agency on terms and conditions already approved, with a view to the application of the certificate procedure for realization of rents. Maintenance has started and the working of this first experiment of the procedure provided for in section 158A of the Bengal Tenancy Act will be watched with much interest.

11. The Director of Land Records gives a gratifying account of the increasing popularity of the settlement records and maps in all departments of the administration and among the public. A considerable quantity of village and thana maps was issued. In Mymensingh alone the sale of printed *khatians* fetched Rs. 33,000.

12. Mr. J. C. Nixon officiated as Director of Surveys till Major Hirst's return from furlough on the 18th December. Major Hirst temporarily reverted to military duty on the 20th May, and was succeeded by Mr. C. A. O'Donel who promises to be a capable administrator of the Department. Mr. M. C. McAlpin, I.C.S., held charge of the Settlement Department throughout the year. The Governor in Council has much pleasure in again acknowledging his valuable services and takes this opportunity of thanking him for his assistance to Government in framing the amendments to the Bengal Tenancy Act for the restriction of alienation of land by aboriginal tribes, which were passed into law by the Bengal Legislative Council on the 22nd January 1918. This amendment of the law was the direct result of an enquiry held by Mr. McAlpin into the condition of Sonthal tenants, and his first-hand knowledge of the problems involved has been of the greatest value. The Governor in Council has read with satisfaction Mr. McAlpin's remarks on the work of Messrs. Sachse, Jameson, Nelson and Thompson, who fully maintained the reputations which they have earned on settlement duty. Their names and those of the officers mentioned in the last paragraphs of the Survey and Settlement reports will be noted.

ORDER.—Ordered that this Resolution be published in the *Calcutta Gazette* and that a copy of it together with copies of the two reports be submitted to the Government of India.

By order of the Governor in Council,

L. BIRLEY,

Secy. to the Govt. of Bengal.

No. 1465.

COPY, with copies of the two reports, forwarded to the Surveyor-General of India for information.

No. 1466.

COPY, with copy of the Survey Department's report, forwarded to the Municipal Department of this Government for information, with special reference to paragraphs 10 to 17 of the report.

No. 1467.

COPY, with copies of the two reports, forwarded to the Appointment Department of this Government for information, with special reference to paragraph 12 of the resolution.

Nos. 1468-69.

COPY forwarded to the Director of Surveys / Director of Land Records, Bengal, for information.

By order of the Governor in Council,

M. A. MOMEN,
Under-Secy. to the Govt. of Bengal.

CALCUTTA,
The 11th February 1918.

B. S. Press—18-2-1918—3129J—425—J. L. C.

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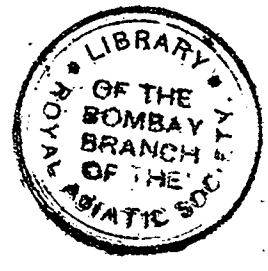
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BURDWAN DIVISION

TO 30th SEPTEMBER 1917.

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TO 30th SEPTEMBER 1917

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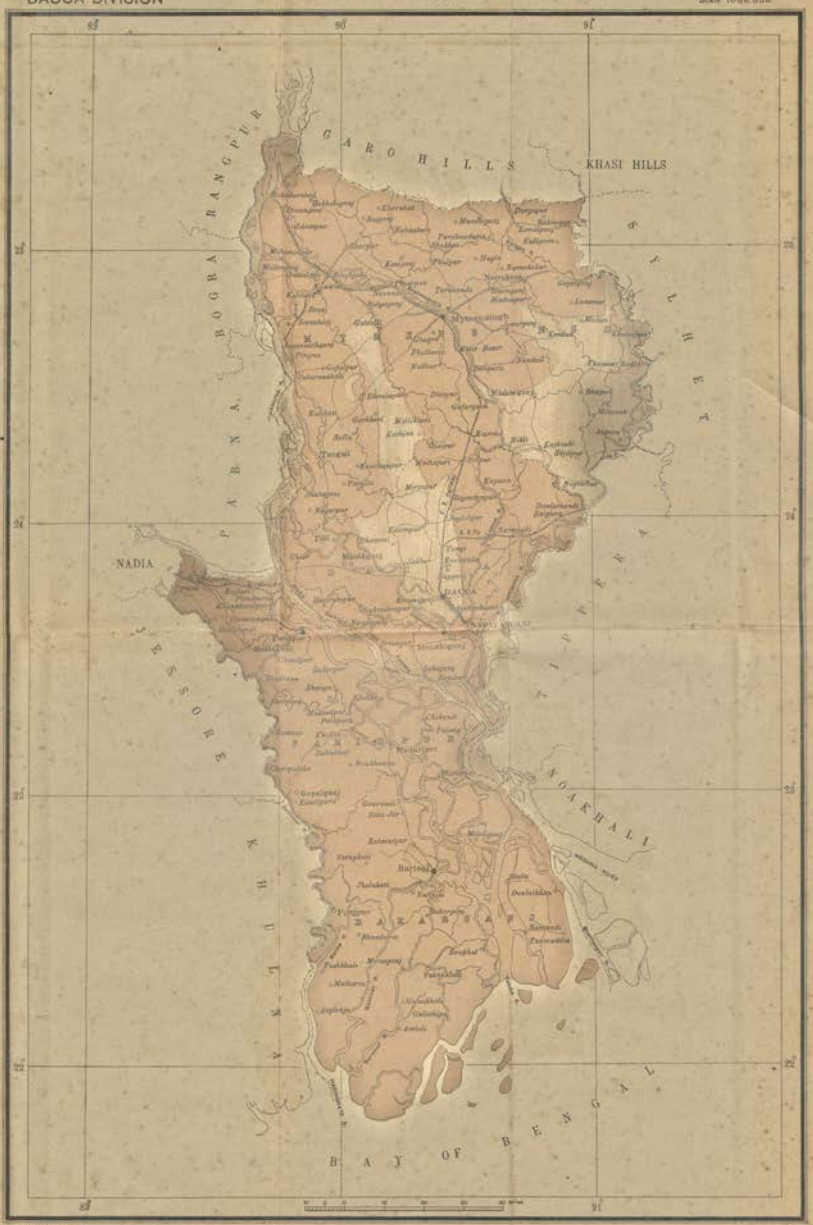

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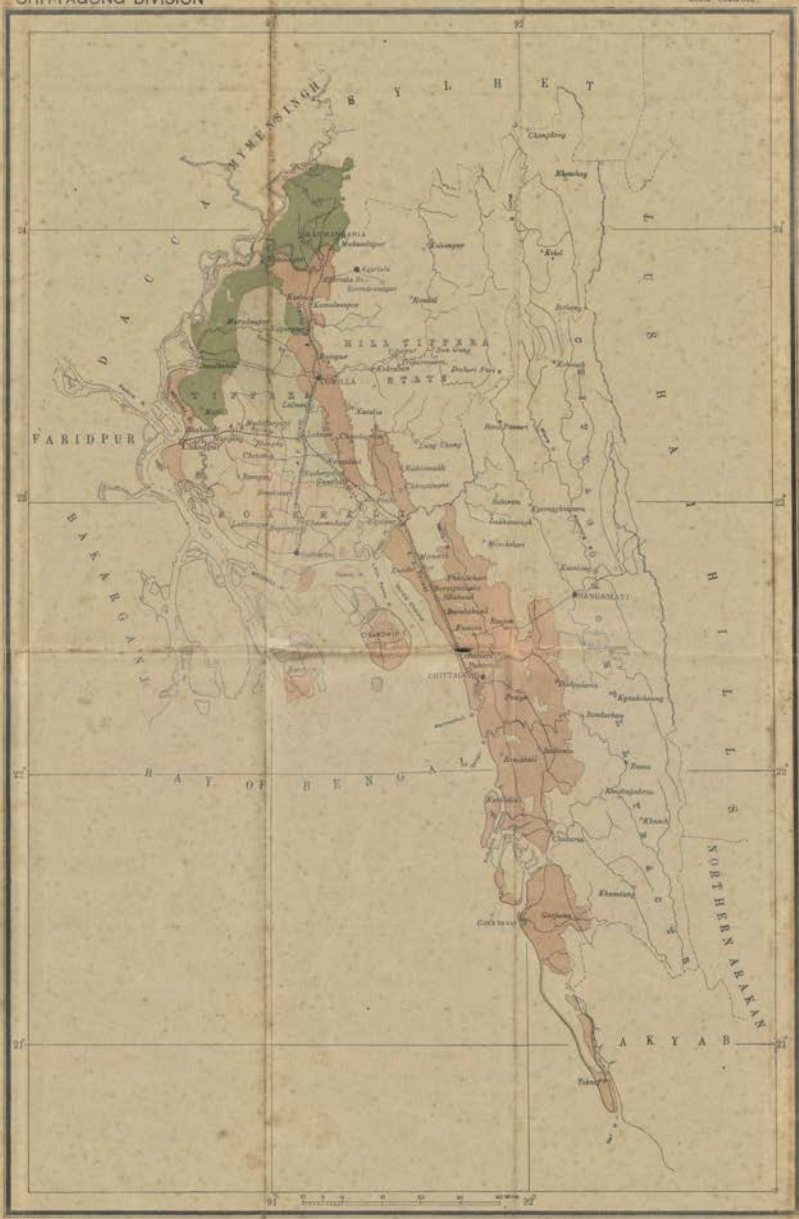

REFERENCES

- Previously Finally Published
- Finally Published in 1916–17
- Draft Published in 1916–17
- Khanapurled in 1916–17
- Traversed in 1916–17

PROGRESS OF MAJOR SETTLEMENT WORK
TO 30th SEPTEMBER 1917.

RAJSHAHI DIVISION.

REFERENCES.

- Previously Finally Published.
- Finally Published in 1916–17.
- Draft Published in 1916–17.
- Khanabumari in 1916–17.
- Previously Traversed.

ANNUAL REPORT

ON THE

SURVEY OPERATIONS IN BENGAL

(OTHER THAN CADASTRAL SURVEYS)

DURING THE YEAR

1917-18.

CALCUTTA :

BENGAL SECRETARIAT BOOK DEPOT.

1919.

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THE YOUNG MEN'S CHRISTIAN Association Press, Calcutta.
MESSRS. LAL CHAND & SONS, 76, Lower Circular Road, Calcutta.
THE STANDARD BOOKSTALL, Karachi.

In Great Britain—

MESSRS. A. CONSTABLE & Co., 10, Orange Street, Leicester Square, London, W.C.
MESSRS. GRINDLAY & Co., 54, Parliament Street, London, S. W.
MESSRS. KEGAN, PAUL, TRENCH, TRÜBNER & Co., 68-74, Carter Lane, London, E.C.; Oriental Department, 25, Museum Street, London, W. C.
MR. B. QUARITCH, 11, Grafton Street, New Bond Street, London, W.
MESSRS. W. THACKER & Co., 2, Creed Lane, Ludgate Hill, London, E.C.
MESSRS. P. S. KING & SON, 2 & 4, Great Smith Street, Westminster, London, S. W.
MESSRS. H. S. KING & Co., 65, Cornhill, London, E.C.
MR. B. H. BLACKWELL, 50-51, Broad Street, Oxford.
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MESSRS. LUZAC & Co., 46, Great Russell Street, London, W.C.
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MESSRS. E. PONSONBY, LIMITED, 116, Grafton Street, Dublin.
MR. T. FISHER UNWIN, LIMITED, 1, Adelphi Terrace, London, W.C.
MESSRS. WILLIAM WESLEY & SON, 28, Essex Street, Strand, London.

On the Continent—

MR. ERNEST LEROUX, Rue Bonaparte, Paris, France.
MR. MARTINUS NIJHOFF, The Hague, Holland.

No. 2.

FROM C. A. O'DONEL, ESQ.,

Offg. Director of Surveys, Bengal.

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,

REVENUE DEPARTMENT.

Dated Calcutta, the 2nd January 1919.

SIR,

I have the honour to submit my report for the survey year ending the 30th September 1918.

I remained in charge of the Department during the year.

2. The main Traverse Programme was 2,553 square miles in Districts Jessore, Nadia, Bankura, and Burdwan.

Programme.	Square miles.	Actually traversed.
Jessore...	1,041	622
Nadia	715	715
Bankura	179	179
Burdwan	618	618

In addition to the above, the relaying of lost stations in an area of 585 square miles in District Jessore and of about 443 square miles in District Bankura originally traversed in 1914-15 was also carried out. Much delay was caused in the areas in which relaying was done owing to the restrictions placed on the recruiting of men in Hazaribagh District.

3. In Jessore the country where relaying was done is very low and the work was greatly delayed by water in the early part of the season. These delays resulted in the curtailment of part of the settlement programme, and the Traverse Programme in District Jessore was also reduced from 1,041 square miles to 622 square miles.

Of the area traversed the 16″ plots of Thana Kaliganj were not prepared as it was found that the Settlement Department could not deal with this area during 1918-19.

The cost rate per square mile for the main operations is as follows :—

	Rs.
1. Jessore (Relaying)	20
2. Jessore (New traverse)	55
3. Nadia	49
4. Bankura (Relaying)	21
5. Bankura (New traverse)	74
6. Burdwan	74

The high rate for items 5 and 6 is due to observations and computations of heights in these areas.

Bengal Traverse Party.

(Imperial Operations.)

4. Mr. O. E. C. Judd continued in charge of the Party and of the Miscellaneous Surveys.

District Jessore.—The programme was the relaying of lost stations in 585 square miles in the area traversed in 1914-15 and the traverse of 1,041 square miles in Thanas Salkopa, Jhenida, Kaliganj, Maheshpur, and Bongaon.

5. The relaying was completed but, owing to the curtailment of the settlement programme, an area of only 622 square miles falling in Thanas Salkopa, Jhenida, and Kaliganj was traversed. In addition to the above, the rivers falling between Jessore and Faridpur and Jessore and Khulna were also traversed. The area of these is 27 square miles ; 10 villages with an area of 17 square miles recently transferred from Jessore to Faridpur District were also traversed.

6. **District Bankura-Burdwan.**—In view of the request of the Honorary Secretary, Mining and Geological Institute, India, that up-to-date maps of the coal areas of Bengal were required, the settlement programme in District Bankura was modified so as to include the coal areas falling in Asansol Sub-division of District Burdwan within these operations.

7. The modified Traverse Programme was the traverse of 179 square miles falling in Police-stations Saltora and Majhia in Thana Gangajalghati of Bankura and of 618 square miles in Asansol Sub-division of Burdwan District for cadastral survey in 1918-19 and the relaying of lost stations in about 443 square miles in the area traversed in Bankura in 1914-15 which came under cadastral operations in 1917-18.

8. In view of the possibility of contoured maps of the coal areas being required it was decided that angles of elevation and depression should be observed at all traverse stations in order to reduce the heights of the stations should these be required at a later stage for the purpose of contouring.

Lines of rough levels were run through the area in order to check the heights of stations obtained by the theodolite traverse. In all 242 miles of rough levels were run.

9. The Municipalities of Asansol and Raniganj which fall in the Asansol Sub-division were traversed for survey on scales larger than 16″=1 mile.

10. **District Nadia.**—The programme for this district was the traverse of an area of 715 square miles in Thanas Chakdah, Ranaghat, Santipur. Krishnagar, Nakasipara, and Kaliganj.

The area includes the five Municipalities of Chakdah, Ranaghat, Birnagar, Santipur, and Krishnagar which were traversed for survey on a scale larger that 16″=1 mile

11. The diara strip along the Bhagirathi River was excluded from the traverse, but will be traversed early in 1918-19 for cadastral survey the same season.

12. **Comparative mapping and 4 inches plotting.**—Comparative maps of the Ganges Diara between Rajshahi, Murshidabad, and Malda, an area of 469 square miles, were prepared during the year. This completes the comparative mapping required in connection with the Rajshahi settlement operations.

Four inches plotting made fair progress. The 4″ plotting in District Tippera is nearing completion. This includes the Chakla-Roshnabad Estate which came under cadastral survey in season 1903 to 1906. The 4″ plotting for Districts Nadia, Bankura, Burdwan, and Jessore is being taken in hand.

The 4″ thana mapping of Jalpaiguri and of Three thanas in Midnapur was completed during the year under report.

Miscellaneous Survey Work.

13. **Howrah Municipality.**—During the season the sheets (125) of circles 1 to 11 were completed and were sent to the municipal office with area statements and new municipal registers for inspection by the public under section 20 of Act I of 1887.

In the other circles, *i.e.*, 12 to 24, areas in duplicate have been extracted, new registers prepared for circles 12 to 16, and the renumbering of holdings in circles 12 to 19 completed.

14. One thousand and fifty-six disputes have been recorded, 1,051 decided, leaving 5 cases to be decided under section 20, and the decisions in all cases have been shown on the sheets and demarcation traces. Seven hundred and seven cases have been finally examined. No appeals have been lodged so far against the orders of the Assistant Superintendent in the above cases.

15. The total expenditure on this operation up to the 30th September 1918 is Rs. 1,94,903.

The question of deposit of the cost by the Municipality and Improvement Trust has not yet been decided.

16. **Cossipore-Chitpur Municipality.**—The remaining 52 revenue map sheets on the 50′=1″ scale were completed.

The area was notified under section 11 of the Act through the Collector of 24-Parganas in October 1917. Only one dispute case was preferred which was dealt with by the Collector of 24-Parganas and the decision was received in April 1918 and the maps and records corrected accordingly.

The revenue-holding boundaries were notified in June 1918 under section 12 of the Bengal Survey Act V of 1875 and, as no further objections were received, the boundaries were confirmed on the 16th August 1918 by notification in the *Calcutta Gazette* of the 11th September 1918.

The 142 revenue map sheets have been sent for reproduction to the Bengal Drawing Office.

17. **Revision of Calcutta added area and maintenance.**—The question of printing off the revision maps as they stand is under consideration.

18. **Darjeeling Municipal Survey.**—Nothing further was done during the year in connection with this work

19. **Jalpaiguri-Bhutan Boundary.**—Nothing further was done during the year in connection with this boundary.

20. **Other miscellaneous operations carried out during the year :—**

(*a*) *Akra-Matiabruz Road.*—The boundaries were confirmed under section 12 of the Act by notification published in the *Calcutta Gazette* of the 28th August 1918 and the maps sent for reproduction. Since the boundaries were confirmed notices have been served by parties against decisions in two cases, the appeals of which were heard by the Collector. The papers in connection with these have been forwarded to the Secretary to the Government of Bengal, Public Works Department, Roads and Buildings Branch, for necessary action.

(*b*) *Jalpaiguri Tea Gardens.*—Of the remaining two objections raised by garden managers one has since been settled.

(*c*) *Preparation of comparative map of boundary between villages Radhaballabpur and Dabar District, Burdwan.*—Comparative maps are ready and the boundary will be relayed by this Department if the Subordinate Judge of Burdwan requires this to be done.

(*d*) *Relaying of tauzi No. 33 in Mauzas Alipore and Radhanagar.*—In this case the Department was called on to relay the limits of plots of the estate shown on the Khasra map of 1849. Owing to wholesale changes attempts to relay the limits of the plots have so far failed and the Collector of 24-Parganas was informed that it would not be possible to relay with any degree of accuracy. The Collector has now ordered that the relaying and demarcation be done at the risk and cost of the applicant.

(*e*) *Relaying of the boundary between Mauza Gobindpur and adjoining mauzas in District Dinajpur.*—The comparative mapping has been completed and the boundary will be relayed during the ensuing field season.

(*f*) *Preparation of a 6″ map of area round Chingri-Khal for the military authorities.*—The Officer Commanding, 52nd Company, Royal Garrison Artillery, required a 6″ map of the area round Fort Chingri-Khal. The area was surveyed and maps were supplied.

(*g*) *Survey of Lot No. 16, 1st portion.*—An area of 2·1 square miles falling in the Sundarbans was traversed at the request of the Collector of 24-Parganas and the 16″ plots were sent to him.

(*h*) *Survey of Government Estate, Shikarpur, 2nd portion.*—The Collector of 24-Parganas intimated that this work had been postponed, but the traverse had then been completed and the 16″ plots supplied.

Drawing Office.

21. Mr. P. F. Delaney held charge of the Drawing Office throughout the year.

22. **Reproduction Section.**—Of the two machine presses used in this Section the one brought down from Shillong will require to be replaced in another two or three years and arrangements for a new machine should be made as funds are available.

Two bed plates, with a set of tension springs for machine presses and some leather skins for ink rollers, were received during the year from Home.

23. The total output of map reproduction for the year was 1,517,981 copies of which 233,320 were printed at the Surveyor-General's office.

The detailed figures are given in Appendix III attached.

24. **Record Section.**—During the year 13,351 original cadastral maps were received bringing the total on record up to 71,736.

The details are given in the attached statement.

25. **Drawing Section.**—The Section was chiefly employed on the preparation of $\frac{1}{4}''$ district maps, 1″ police-station and union maps, and colouring of 4″ maps, with miscellaneous fair drawings for reproduction. The annexed statement gives the number of maps prepared during the year.

26. A special staff has been entertained to carry out badar corrections on 254 sheets and prepare new traces of 177 16″ sheets of District Chittagong for reproduction.

The copies are required by the Collector to replenish his stock for sale purposes.

27. **Map Issue and Copying Section.**—Eight hundred and eighty-three applications for copies of maps from private parties and Government Officials for administrative purposes were dealt with during the year.

One thousand seven hundred and eighty copies of printed maps were also supplied to private parties and Government Officials.

Bengal Land Surveying School.

28. The School was in charge of Mr. Rajendra Lal Banarji throughout the year.

29. Three district, and six candidate, kanungos completed their training at the School during the year.

30. The following statement shows the 1st and 2nd year students admitted for training and the results of the examination.

	Number admitted.		Passed examinations.	
	Hindus.	Muhammadans.	Hindus.	Muhammadans.
First year	16	3	11	2
Second year	9	Nil	7	Nil.

31. Mr. T. Emerson, I.C.S., Collector, Mr. F. W. Ward, I.C.S., District and Sessions Judge, and Mr. W. H. Thompson, I.C.S., Settlement Officer, continued to show great interest in the School.

The School was inspected on two occasions by me during the year.

Imperial Standard Mapping Section.

32. Mr. P. Simpson, Extra Assistant Superintendent, Survey of India held charge of the Section except for a period of three months when he was on privilege leave. During the period of his leave Mr. P. N. Sur, Extra Assistant Superintendent, Survey of India, acted for him.

33. Eleven standard sheets, viz.: Nos. 73 $\frac{N}{\text{and } 8}$, 73 $\frac{O}{5}$, 78 $\frac{H}{3}$, 78 $\frac{K}{8}$, 79 $\frac{I}{1, 2, 3, \text{ and } 7}$, and 79 $\frac{J}{9 \text{ and } 15}$, were sent for publication. These cover an area of 2,970 square miles.

Twenty-nine sheets are under completion.

Tour and Services of Officers.

34. **Tours.**—Owing to the increase in the programme, and to the absence of some officers of the Department on Military duty, I have found a growing difficulty in being absent from Headquarters. I was on tour for 31 days during the year.

35. **Services of Officers.**—Messrs. O. E. C. Judd and P. F. Delaney have worked hard and well in carrying through their increased programmes.

Mr. Dwijadas Mazumdar, Sub-Deputy Collector, is proving himself able and, with some field experience, which he is now having, should make a very useful officer.

Rao Sahib Damodar Rao, my Personal Assistant, has continued to give me invaluable help in administrative matters.

I have the honour to be,

SIR,

Your most obedient servant,

C. A. O'DONEL,

Offg. Director of Surveys, Bengal.

APPENDIX I—PART A.

Statement showing particulars of each survey operation undertaken by Bengal Traverse Party during the year ending 30th September 1918.

Description of works.	Geographical limit of work.	Origin used.	Number of villages.	Linear miles of chaining.	Number of new Theodolite stations.	Number of Azimuth observed.	Number of Azimuth used.	Number of Sub-Traverse.	Number of Village Circuits.	Number of Sub-Circuits.	Number of Pardas.	Number of Main Circuits.	Marks used (number.)							Area of each thana in square miles.			
													Old Stone or Pillars.	Trijunction Marks Burn & Cos', Cylinders.	Galvanized Cylinders.	Country Stones.	Iron Pegs.	Pegs.	Total number of stations at which Theodolite was set up.	Chakdaha partly.	Ranaghat partly.	Santipur partly.	Krishnanagar partly.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
District Nadia upland ...	Lat. 22° 52′ 00″ to 23° 48′ 50″. Long. 88° 09′ 22″ to 88° 45′ 20″.	Lat. 23° 30′ 00″ Long. 89° 30′ 00″	775	3,346	20,575	137	136	1,539	775	33	26	6	53	1,768	471	...	...	18,283	25,201	170	161	48	135
District Jessore upland. (Relaying work).	Lat. 22° 56′ 00″ to 23° 22′ 30″. Long. 89° 13′ 30″ to 89° 48′ 30″.	Lat. 23° 30′ 00″ Long. 89° 30′ 00″	794	2,450	...	...	...	575	794	26	...	4½	...	...	...	...	...	...	...	Thana Mahamadpur partly 39	Thana Lohagara 143	Thana Barkalia 86	Thana Narail 211
Garai, Barasia Madhumati rivers between districts Jessore and Faridpur.	Lat. 22° 53′ 00″ to 23° 44′ 35″. Long. 89° 18′ 30″ to 89° 49′ 00″.	Lat. 23° 30′ 00″ Long. 89° 30′ 00″	...	141	515	3	...	...	R. ct. 28	...	...	...	62	...	1	...	...	452	569	25	...	...	...
Bhairab river and Majur-Khali Khal between districts Jessore and Khulna.	Lat. 22° 56′ 00″ to 23° 01′ 00″. Long. 89° 27′ 30″ to 89° 34′ 00″.	Lat. 23° 30′ 00″ Long. 89° 30′ 00″	...	16	101	...	...	...	Blocks 8	...	...	...	...	5	...	...	...	97	116	2	...	...	...
Scattered villages, 10 of thana Barkalia, district Jessore, now transferred in district Faridpur.	Lat. 22° 58′ 00″ to 23° 09′ 00″. Long. 89° 42′ 30″ to 89° 48′ 20″.	Lat. 23° 30′ 00″ Long. 89° 30′ 00″	10	68	425	2	...	25	10	...	...	...	28	30	20	...	...	349	495	17 Thana Salkopa	... Thana Jhenida.	... Thana Kaliganj.	...
District Jessore, upland Traverse (Major operation.)	Lat. 23° 12′ 25″ to 23° 47′ 25″. Long. 88° 43′ 42″ to 89° 22′ 30″.	Lat. 23° 30′ 00″ Long. 89° 30′ 00″	(c) 909	3,000	15,420	154	145	853	904	(a) 35	20	(b) 4	19	1,948	222	...	...	13,231	18,996	230 Thana Raipur.	246 Thana Sim'apal.	146 Thana Khatra.	... Thana Bankura partly.
District Bankura (Forest) Square System Traverse. (Relaying work.)	Lat. 22° 37′ 30″ to 23° 37′ 30″. Long. 86° 37′ 30″ to 87° 50′ 00″.	Lat. 23° 00′ 00″ Long. 87° 30′ 00″	155	684	...	...	...	224	155	15	...	1	...	..	...	...	...	...	...	198 Forest Block	...	...	...
District Bankura upland. (Relaying work.)	Lat. 22° 37′ 30″ to 23° 37′ 30″. Long. 86° 37′ 30″ to 87° 50′ 00″.	Lat. 23° 00′ 00″ Long. 87° 30′ 00″	1,388	3,097	...	...	...	745	1,388	48	12	4	...	...	...	...	...	...	...	135	119	343	175
District Bankura, upland traverse. (Major operation.)	Lat. 23° 24′ 30″ to 23° 37′ 20″. Long. 86° 57′ 00″ to 87° 15′ 00″.	Lat. 23° 00′ 00″ Long. 87° 30′ 00″	380	780	3,854	46	41	282	238	7	6	1	11	477	2,594	154	...	618	4,894	...	...	...	...
District Burdwan, Upland Traverse (Major operation.)	Lat. 23° 24′ 00″ to 23° 52′ 00″. Long. 86° 52′ 00″ to 87° 35′ 30″.	Lat. 23° 00′ 00″ Long. 87° 30′ 00″	687	2,400	12,854	112	107	910	601	24	18	3	175	1,029	4,982	72	116	6,420	15 876	...	...	...	...
Dabur and Radhaballabpur dispute case, district Burdwan.	.....	Lat. 23° 00′ 00″ Long. 87° 30′ 00″	...	27·56	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
District 24-Parganas. Sunderbans Forest Block of Shikarpur 2nd portion and lot No. 16.	.....	Lat. 22° 30′ 00″ Long. 88° 30′ 00″	...	7·82 9·13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
District Dinajpur Gobindapur.	.....	Lat. 25° 30′ 00″ Long. 88° 30′ 00″	...	23·99	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
District 24-Parganas. Dhanbari block Nos. 1 and 2 (Fort Chingrikhal).	.....	Lat. 22° 30′ 00″ Long. 88° 30′ 00″	...	66 47	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

(a) Including 8 sub-circuits of thana Mahespur which are traversed in advance.
(b) Including one main circuit (thana Mahespur) which is traversed in advance.
(c) 16″ plots have not been prepared this season for 255 villages of M. O. No. 9 (thana Kaliganj.)

APPENDIX I—PART A—*concluded.*

Statement showing particulars of each survey operation undertaken by Bengal Traverse Party during the year ending 30th September 1918.

Description of works.	Area of each thana in square miles.					Total area dealt with in square miles.	Area for cadastral same season in square miles.	Area for Traverse next season in square miles.	Number of 16″ sheets.	Number of 32″ sheets.	Number of 64″ sheets.	Number of 4″ sheets.	Number of G. T. connections	Average error in feet per mile.	Demarcations by inhabitants, good or bad.	Magnetic declination.	Traverse data copied for Settlement Officer.	Maps used to guide Surveyor.	Health of establishment.	Work started on.	Work completed on.	Remarks.
	25	26	27	28	28(*a*)	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
District Nadia upland ...	125 Thana Baghar-para.	76	...	...	...	715	...	1,175*	1,402	...	...	...	(*d*) 12	17·1	Nil	E. 0° 13′	Will be ready on 31-12-1918.	4″ R. S. maps 1848-55.	Fair	12-11-1917	8-7-1918	Longitudinal correction 2° 27′ 18″ has been applied.
District Jessore upland. (Relaying work.)	106	...	...	...	...	585	585	...	1,236	...	...	...	...	...	...	E 0° 13′	Will be ready by 31-12-1918.	4″ Rough plotted sheets of 1914-15.	Do.	7-11-1917	20-3-1918	Longitudinal correction has been applied.
Garai, Barasia, Madhumati rivers between districts Jessore and Faridpur.	...	...	...	...	...	25	25	...	82	...	...	...	...	...	...	E. 0° 13′	Ditto ...	R. S. maps 1865-59.	Do.	1-3-1918	18-5-1918	Ditto. Connections have been made with 81 stations of district Faridpur, season 1904-05.
Bhairab river and Majurkhali Khal between districts Jessore and Khulna.	...	...	...	...	...	2	2	...	13	...	...	...	...	...	...	0° 13′	Ditto ...	Ditto ...	Do.	20-5-1918	30-6-1918	Ditto.
Scattered villages, 10 of thana Barkatia, district Jessore, now transferred in district Faridpur.	...	...	...	...	...	17	17	...	31	...	...	...	...	...	Nil	E. 0° 13′	Ditto ...	Ditto ...	Do.	7-11-1917	20-3-1918	Ditto.
District Jessore, upland Traverse. (Major operation.)	...	...	...	...	...	622	...	649	982	...	...	...	...	...	,,	E. 0° 13′	Ditto ...	Ditto ...	Good	7-11-1917	21-5-1918	Ditto. Connections have been made with 17 stations of Orinoline, Traverse, season 1914-15.
District Bankura (Forest) Square System Travers. (Relaying work.)	...	...	...	...	...	193	193	...	...	..	...	...	...	...	,,	E.0° 30′ 0″	31-1-1919 ...	4″ sheets 1914-15.	Do.	16-11-1917	1-3-1918	Longitudinal correction of 2′ 27″ 18 has been applied.
District Bankura, upland (Relaying work.)	... Thana Gangajol Ghati.	...	...	...	...	772	772	...	...	...	...	...	...	...	,,	E.0° 30′ 00″	31-1-1919 ...	4″ sheets 1914-15.	Do.	16-11-1917	1-3-1918	Ditto.
District Bankura, upland Traverse (Major operation.)	179	... Thana Asansol.	... Thana Raniganj.	... Thana Kaksa.	... River area.	179	...	783	...	...	...	...	(*e*) 4	...	,,	E.0° 13′ 00″	31-12-1918 ...	R. S. maps 1854-55.	Do.	16-11-1917	30-6-1918	Ditto.
District Burdwan, upland Traverse (Major operation.)	...	187	310	106	15	618	...	...	...	14	12	...	(*f*) 8	...	,,	E.0° 13′ 00″	31-12-1918 ...	Ditto ...	Do.	16-11-1917	30-6-1918	Ditto.
Dabur and Radhaballavpur dispute case, district Burdwan.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....	...	.....	.....	
District 24-Parganas, Sundarbans, F. block of Shikarpur 2nd portion and lot. No. 16.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....	...	.....	.....	
District Dinajpur, Gobindapur.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....	...	.....	.....	
District 24-Parganas, Dhanbati Block Nos. 1 & 2, (Fort Chingri khal.)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....	...	.....	.....	

* Including Nadia Diara.

(*d*) Boga T. S. I, Jeodhara T. S. III, Beliati T. S. IV, Arbandi T. S. V., Bahadurpur T. S. VII, Kedapara T. S. VIII, Dogachha T. S. IX, Gobipur T. S. X, and Gobindopur T. S. XI, of Calcutta Meridional Series.

(*d1*) Simahat T. S. I., Ghatigachhi T. S. III, Kanakpur T. S. V. of East Calcutta Longitudinal Series.

(*e*) Susunia H. S. LXV, Maliadi E. Pediment h. m. Munjea h. m. and Pabra h. m. in Calcutta Longitudinal Series.

(*f*) Bistapur Pagoda, Durgapur LXII, Nawagaon T. S., LXVII, Damonichati s. } in Calcutta Longitudinal Series.
Radhamadhupur H. S. LXVI, Chuirit s., Barpahari h. m., Desarman Temple. }

APPENDIX I—Part B.

Statement of outturn and cost rates for the year ending 30th September 1918.

District and Tract.	Description of works.	Estimated area in square miles to be dealt with.	Year of inception of operation.	Area surveyed in square miles.		Cost rate per square mile.		Balance of area in square miles remaining for survey.	Estimated cost completing area in column 9.	Estimated final cost rate per square mile.
				During the year under report.	Total including previous year.	During the year under report.	From commencement to end of the year under report.			
1	2	3	4	5	6	7	8	9	10	11
District operations.										
Nadia	Traverse ...	2,900	1914	745	867*	...	...	2,033	...	...
Jessore	Ditto ...	2,900	1914	622	1,590	...	...	1,310	...	...
Bankura	Ditto ...	2,621	1914	179	1,144	...	...	1,477	...	...
Burdwan	Ditto ...	2,677	1917	618	618	...	...	2,059	...	...
Minor operations.										
Dabur and Radhaballabpur dispute case, district Burdwan.	Ditto ...	...	1917	...	...	...	...	...	...	...
District 24-Parganas Sundarbans Forest Block of Shikarpur 2nd portion and lot No. 16.	Ditto ...	3·2	1917	3·2	...	...	...	...	...	...
District 24-Parganas Dhanbari blocks Nos. 1 and 2 (Fort Chingrikhal).	Ditto ...	10	1917	10	...	...	...	...	...	...
District Dinajpur, Gobindapur (dispute case).	Ditto ..	...	1917	...	...	...	...	...	...	...

* Including area traversed in Rajshahi-diara 1914-15.

APPENDIX II.

Statement of sums expended during the year ending 30th September 1918.

District and Tract.	Description of work.	Expenditure incurred during the year under report.				Total expenditure from inception to end of the year under report.			
		Direct charge including share of general sector, if any.	Share of control.	All indirect charges other than share of control.	Total.	Direct charge including share of general sector, if any.	Share of control.	All indirect charges other than share of control.	Total.
1	2	3	4	5	6	7	8	9	10
District operations.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Noakhali—Tippera—	Traverse	3,697	702	248	4,647	1,55,119	7,195	11,678	1,73,992
Ditto Diara comparative mapping.	Mapping	252	48	17	317	2,201	452	180	2,833
Ditto 4″ Jurisdiction mapping ...	Ditto	325	62	23	410	1,180	259	108	1,547
Ditto Reducing of original co-ordinates	Computation	198	38	14	250		Not available.		
Ditto Reproduction of 16″ maps ...	Reproduction	8,133	1,551	7,427	17,111	11,052	2,224	9,152	22,428
Rajshahi—Diara comparative mapping	Mapping	1,594	303	99	1,996	3,404	722	254	4,381
Ditto Diara 4″ plots jurisdiction mapping ...	Ditto	16	3	...	19	16	3	...	19
Ditto Reproduction of 16″ maps	Reproduction	12,763	2,432	11,654	26,849		Not available.		
Ditto ditto 2″ mujmillis	.....	185	37	169	391		Ditto.		
Jessore—	Traverse	36,883	7,048	2,465	46,396	90,968	16,036	6,372	1,13,376
Do. Reproduction of 1″ S. O.'s not final maps	Reproduction	11	2	9	22	11	2	9	22
Do. ditto maps	Ditto	10	2	8	20	10	2	8	20
Bankura, Burdwan { Bankura ... ... / Burdwan	Traverse	17,796	3,384	1,186	22,368	59,577	10,268	3,995	73,833
	Ditto	36,184	6,922	2,426	45,532	35,184	6,922	2,426	45,532
Ditto Reproduction of maps of Bankura	Reproduction	22	4	17	43	22	4	17	43
Ditto Reproduction of maps of Burdwan	Ditto	8	2	7	17	8	2	7	17
Nadia—	Traverse	27,797	5,276	1,858	34,931	28,057	5,337	1,882	35,276
Do. Reproduction of maps	Reproduction	12	2	11	25	12	2	11	25
Midnapore—Reproduction of 16″ maps ...	Ditto	17,997	3,429	16,245	37,671		Not available.		
Ditto Ditto of 2″ mujmillis ...	Ditto	299	57	273	629	299	57	273	629
Ditto Plotting of G. T. station maps ...	Traverse	136	26	9	171	136	26	9	171
Dacca—Reproduction of 16″ maps	Reproduction	56	9	49	114		Not available.		
Do. ditto of 2″ stone mujmidis ...	Ditto	199	38	183	420		Ditto.		
Mymensingh—Reproduction of 16″ maps	Ditto	6,366	1,409	5,812	13,587		Ditto.		
Ditto ditto of 2″ mujmillis ...	.....	248	48	227	523		Ditto.		
Total District operations	.....	1,21,191	32,835	50,633	2,54,659	...	...	...	...
Minor operations.									
Preparation of Revenue maps, Cossipore-Chitpur Municipality, district 24-Parganas.	.....	510	97	8	615	2,748	683	56	3,487
Survey of Akra-Matiabruj Road	.....	162	34	3	196	877	245	15	1,137
Traverse survey of about 2,315 bighas of land appertaining to the new and second blocks of Government estates Shikarpore 2nd portion in the Sagor Island, district 24-Parganas.	.....	177	34	3	214	177	34	3	214
Survey of lot No. 16, 1st portion in Sundarbans, district 24-Parganas.	.....	290	57	5	352	290	57	5	352
Howrah Town survey	.....	12,124	2,310	811	15,245	1,86,246	29,743	8,384	1,94,903
Relaying of boundary dispute of village Gobindpur, lot Bagherchar, bearing Nos. 83, 93, 93, district Dinajpur.	.....	702	133	47	882	702	133	47	882
Survey of mauza Alipur and Radhanagar, tauzi No. 33, for Maharajadhiraja of Burdwan.	.....	33	6	3	42	72	17	6	95
Survey of Chingrikhal, district 24-Parganas ...	... ..	436	83	29	548	436	83	29	548
Relaying of boundary of villages Radhaballabhpur and Dabar of thana Assansole, district Burdwan.	.....	33	6	3	42	33	6	3	42
Reproduction of village maps of Estate No. 3856, district Bakerganj, for sale.	.....	2	...	2	4		Not available.		
Reproduction of 1″ plot final maps of thana Madaripur, Palong, district Faridpur.	.....	1	...	1	2	1	...	1	2
Reproduction, of 16″ cadastral sheets of Shikarpur 2nd portion (thana Kalpi), district 24-Parganas	.....	2	...	2	4	2	...	2	4
Reproduction, Departmental	.....	85	16	81	182	97	19	90	206
Ditto of 16″ cadastral sheets of certain villages in district Bakarganj for sale.	.....	14	2	12	28		Not available.		
Reproduction of 16″ cadastral maps of Estate Amirpur, tauzi No. 3040 (67)P.	.....	26	4	26	56	26	4	26	56
Reproduction of 16″ cadastral maps of district Jalpaiguri for sale.	.....	16	3	15	34	16	3	15	34
Reproduction of 16″ maps of Mansadip 2nd portion, district 24-Parganas.	.....	38	7	37	82	38	7	37	82
Reproduction of S. O.'s not final maps of thana Bada, district Jalpaiguri.	.. ...	3	4	3	7	3	1	3	7
Reproduction 5″=1 mile map of Cossipore-Chitpur for Record Room.	.....	4	1	3	8	4	1	3	8
Reproduction of symbols of 1″=1 mile maps.	.....	6	2	5	13	6	2	5	13
Ditto of examination papers for Comilla Survey School.	.....	1	...	1	2	1	...	1	2
Reproduction of forms for Educational Department.	.....	1	...	1	2	1	...	1	2
Reproduction of 16″ maps of district Faridpur for the Collector.	.....	101	19	95	215		Not available.		
Reproduction of ½″ district map of Malda for incorporation in the Gazetteer Volume, district Malda.	... ..	105	19	97	221	105	19	97	221
Reproduction of 4″ maps of Mymensingh for Sub-divisional Officer.	.....	736	140	690	1,566		Not available.		
Reproduction of 4″ maps of Rajshahi	.....	183	35	170	388		Ditto.		
Reproduction of 4″ maps of Noakhali and Tipperah.	.....	136	26	128	290		Ditto.		
Reproduction of 1″ S. O.'s not final maps, district Mymensingh.	.....	16	3	14	33		Ditto.		
Reproduction of 1″ Bakerganj final maps	.....	26	4	25	55	26	4	25	55

APPENDIX II.—*concld.*

Statement of sums expended during the year ending 30th September 1918.

DISTRICT AND TRACT.	Description of work.	EXPENDITURE INCURRED DURING THE YEAR UNDER REPORT.				TOTAL EXPENDITURE FROM INCEPTION TO END OF THE YEAR UNDER REPORT.			
		Direct charge including share of general sector, if any.	Share of control.	All indirect charges other than share of control.	Total.	Direct charge including share of general sector, if any.	Share of control.	All indirect charges other than share of control.	Total.
1	2	3	4	5	6	7	8	9	10
Minor operations—concld.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Reproduction of 4″ maps of Midnapore	.....	388	74	368	830		Not available.		
Ditto of 4″ ,, of Dacca	.....	199	38	190	427		Ditto.		
Ditto of 1″ ,, of district Midnapore for Collector.	.....	1	...	1	2		Ditto.		
Reproduction of 50′ maps of Calcutta for sale ...	...	27	4	26	57		Ditto.		
Ditto of 1″, 4″, maps and 1″ Conventional Signs, 1″ Chandra's maps, 1″ final maps for Jurisdiction Mapping Rules.	.....	24	4	22	50	24	4	22	50
Reproduction maps for Midnapore Final Report ...	.....	6	2	5	13	6	2	5	13
Ditto 16″ cadastral sheets of Kamarpole Government Estate in 24-Parganas.	.....	136	27	120	283	136	27	120	283
Reproduction of Index maps for the Survey and Settlement Annual Report for 1916-17	.....	309	50	205	564	309	50	205	564
Reproduction of maps for guide and glossary to the Survey and Settlement Records in Bengal.	.....	393	39	125	557	393	39	125	557
Reproduction of correction slip to 1″ Jurisdiction thana maps of Kaliachak, district Malda.	.....	4	1	3	8	4	1	3	8
Reproduction of correction slip to 1″ Jurisdiction thana maps of thana Shamsherganj, district Murshidabad.	.....	4	1	3	8	4	1	3	8
Reproduction of 16″ cadastral sheets of district Burdwan.	.....	4	1	3	8		Not available.		
Reproduction of 4″ district maps of Bengal ...	.....	1,796	341	1,579	3,716		Ditto.		
Reproduction of 16″ cadastral village sheets of district Burdwan.	.....	36	7	30	73		Ditto.		
Reproduction of 16″ cadastral village sheets of Cooch Behar State.	...	6,487	1,238	6,085	13,810	6,487	1,238	6,085	13,810
Reproduction of 16″ maps of Fatehsingh Estate in district Murshidabad.	.....	22	4	20	46	22	4	20	46
Reproduction of village mars of district Hooghly	.....	14	3	12	29	14	3	12	29
Ditto ditto of Bheel Pabla Estate, district Khulna.	.....	23	4	21	48	23	4	21	48
Reproduction of 16″ maps of tauzi No. 60 of Mr. Hennesy's Estate, district Malda.	.....	2	...	2	4	2	...	2	4
Reproduction of 16″ maps of mauza Gilatala, district Khulna.	.....	27	4	25	56	27	4	25	56
Reproduction of 50′ maps of Howrah Municipality	.....	8	2	7	17	8	2	7	17
Reproduction of 16″ Survey and Settlement maps of estate Gopalpore, tauzi No. 916 of Dinajpur.	.....	9	2	8	19	9	2	8	19
Reproduction of 16″ maps of tauzi No. 60 in Malda Collectorate.	.....	75	15	64	154	75	15	64	154
Reproduction of 16″ maps of Fatesingh Estate in Murshidabad comprising thana Bharatpore, Beldanga, etc.	.....	646	125	568	1,339	646	125	568	1,339
Bengal Imperial Standard Mapping Section (Provincial share of Bengal).	.....	12,578	...	...	12,578	27,524	...	...	27,524
Tipperah—Comilla Survey School	.....	9,945	...	...	9,945	99,860	...	285	1,00,145
Drawing Office, Bengal:—									
Bengal—Record Section	.....	8,465	1,610	259	10,334	52,405	10,620	724	63,749
,, Drawing Section	.....	11,451	2,183	134	13,768	78,686	15,079	1,419	95,184
,, Map Issue and Copying Section ...	.....	5,351	1,022	63	6,436	22,577	4,994	344	27,915
Total minor operations ...	.....	74,399	9,840	12,268	96,507	...	...	...	...
Total district operations ...	.....	1,71,191	32,835	50,633	2,54,659	...	...	...	...
GRAND TOTAL ...	.....	2,45,590	42,675	62,901	3,51,166	...	...	...	...

APPEN

Bengal Drawing

For the year ending

REPRODUCTION

MAPS OF DISTRICTS, ETC.	VILLAGE MAPS.						Complete or incomplete.	MISCELLANEOUS.		
	Previously supplied.		Supplied during the year.		Total to date.					
	Sheet or map.	Copies.	Sheet or map.	Copies.	Sheet or map.	Copies.		Previously supplied.	Supplied during the year.	Total to date.
1	2	3	4	5	6	7	8	9	10	11
BENGAL.										
Bakarganj	986	91,398	365	3,070	1,351	94,468	Incomplete	2,202	...	2,202
Bankura	...	...	...	...	...	...	...	162	100	262
Birbhum	229	30,388	...	...	229	30,388	Complete ...	...	...	...
Bogra	9	400	...	...	9	400	...	29	...	29
Burdwan	69	2,675	77	1,952	146	4,627	Incomplete	474	...	474
Calcutta	...	...	...	...	...	..	...	51,837	200	52,037
Chittagong	9,466	64,488	...	...	9,466	64,488	Incomplete	1,594	...	1,594
Dacca	7,918	1,194,973	28	280	7,946	1,195,253	Complete ...	5,415	4,180	9,595
Darjeeling	...	...	...	...	...	...	...	1,800	...	1,800
Dinajpur	54	5,171	5	294	59	5,465	Complete ...	195	...	195
Faridpur	7,084	685,245	143	2,163	7,227	687,408	Ditto ...	939	...	939
Hooghly	158	8,027	14	1,100	172	9,127	Ditto ...	...	...	...
Howrah	5	200	...	...	5	200	...	1,058	94	1,152
Jalpaiguri	2,995	233,363	123	615	3,118	233,978	Complete ...	7,639	...	7,639
Jessore	41	4,300	...	...	41	4,300	...	732	...	732
Khulna	66	3,802	17	2,020	83	5,822	...	15	...	15
Malda	10	1,000	21	2,275	31	3,275	...	...	...	...
Midnapore	16,105	790,112	4,754	595,100	20,859	1,385,212	Incomplete	965	11,100	12,065
Murshidabad	90	43,994	151	20,595	241	64,589	...	255	...	255
Mymensingh	9,829	803,088	2,095	168,793	11,924	971,881	...	1,787	4,500	6,287
Nadia	4	825	...	...	4	825	...	6	...	6
Noakhali	1,151	115,398	2,197	239,968	3,348	355,366	Incomplete	1,140	80	1,220
Pabna	42	3,960	...	...	42	3,960	Complete ...	...	...	...
Rajshahi	4,352	399,154	2,154	279,416	6,506	678,570	Incomplete	4,025	4,100	8,125
Rangpur	...	...	...	...	...	...	..	760	...	760
Tippera	36	2,250	...	...	36	2,250	...	8,188	...	8,188
24-Parganas	34	1,577	79	6,850	113	8,427	...	594	...	594
Cooch Behar	...	...	705	98,950	705	98,950	...	2,705	...	2,705
Departmental Returns	...	...	...	...	...	...	...	26,623	11,681	38,304
Extra Departmental Returns ...	...	...	...	...	...	...	...	73,324	25,125	98,449
TOTAL ...	60,733	4,395,788	12,928	1,423,441	73,661	5,819,229	...	194,463	61,160	255,623

DIX III.

Office Outturn.

the 30th September 1918.

SECTION.

TRIANGULATOR CHARTS.			JURISDICTION MAP 1″=1 mile.						Jurisdiction map 4″=1 mile.			District map.		
			Preliminary.			Final.								
Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
					Rs.									
102	...	102	11,125	...	11,125	...	225	225	...	...	...	556	800	1,356
63	...	63	4,095	...	4,095	...	...	...	...	...	...	50	...	50
63	...	63	2,318	...	2,318	...	...	...	...	...	...	1	400	401
...	...	...	1,936	...	1,936	...	...	...	...	...	...	56	...	56
52	...	52	4,468	...	4,468	...	...	...	...	...	...	50	400	450
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	2,500	...	2,500	...	...	...	...	...	...	56	800	856
102	...	102	6,350	...	6,350	...	...	...	5,905	5,200	11,105	...	400	400
...	...	...	...	...	...	...	...	...	...	...	...	768	...	768
52	...	52	4,150	...	4,150	...	..	...	600	...	600	56	...	56
102	...	102	705	40	745	150	...	150	5,745	...	5,745	556	400	956
52	...	52	1,195	...	1,195	1,800	...	1,800	...	...	...	175	...	175
72	...	72	2,775	...	2,775	...	...	...	...	...	...	50	...	50
52	...	52	2,850	100	2,950	..	...	...	1,155	...	1,155	81	...	81
52	...	52	2,095	120	2,215	2,400	...	2,400	...	...	...	50	...	50
50	...	50	6,145	...	6,145	...	...	...	..	...	...	50	400	450
50	...	50	2,130	...	2,130	...	...	...	...	...	...	56	800	856
52	...	52	470	20	490	...	...	...	1,772	6,800	8,572	550	...	550
52	...	52	6,142	...	6,142	...	...	...	...	...	...	50	...	50
102	...	102	1,140	225	1,365	...	...	...	4	10,240	10,244	1,456	150	1,606
...	...	...	5,505	...	5,505	...	...	...	...	...	...	50	...	50
52	...	52	2,400	..	2,400	750	...	750	...	4,160	4,160	56	...	56
52	...	52	2,122	...	2,122	...	...	...	...	...	...	556	...	556
50	...	50	7,672	...	7,672	...	...	...	...	1,600	1,600	1,156	...	1,156
...	...	...	4,400	...	4,400	...	...	...	...	...	...	56	...	56
52	...	52	2,673	100	2,773	...	...	...	24	...	24	556	...	556
52	...	52	7,545	...	7,545	1,050	...	1,050	...	...	...	50	...	50
50	...	50	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1,378	...	1,378	94,926	605	95,801	6,150	225	6,375	15,205	28,000	43,205	7,147	4,550	11,697

APPENDIX

Bengal Drawing

For the year ending

MAP RECORD

DISTRICTS.	ORIGINAL CADASTRAL AND TOPO MAPS.			REVENUE DIARA AND TOPO MAPS.						TRAVERSE VOLUMES		
	Received.			Received.			Issued.			Received.		
	Previously.	During year.	Total.	Previously.	During year.	Total	Previously.	During year.	Total.	Previously.	During year.	Total.
	Sheets.	Sheets.	Sheets.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.
	27	28	29	30	31	32	33	34	35	36	37	38
BENGAL.												
Bakarganj	6,288	6	6,294	12	...	12	...	...	...	67	...	67
Bankura	514	3	517	4	...	4	...	...	...	7	...	7
Birbhum	311	...	311	51	...	51	...	...	...	6	...	6
Bogra	293	76	369	14	...	14	...	...	...	5	...	5
Burdwan	201	80	281	6	...	6	...	...	...	29	...	29
Calcutta	...	...	...	74	...	74	...	...	...	28	...	28
Chittagong	3,553	7	3,560	20	...	20	...	...	...	50		50
Dacca	7,193	53	7,246	5	...	5	...	...	...	77	...	77
Darjeeling	549	...	549	14	...	14	...	...	...	24	...	24
Dinajpur	994	...	994	19	...	19	...	...	...	40	...	40
Faridpur	5,905	...	5,905	8	...	8	...	...	...	43	...	43
Hooghly	241	...	241	16	...	16	...	...	...	21	...	21
Howrah	217	59	276	...	...	...	...	...	...	3	1	4
Jalpaiguri	5,042	60	5,102	14	..	14	...	...	...	78	...	78
Jessore	204	83	287	16	...	16	...	...	...	26	...	26
Khulna	429	18	447	2	...	2	...	...	...	16	...	16
Maldah	173	21	194	25	...	25	...	...	...	17	...	17
Midnapore	7,207	6,456	13,663	17	...	17	...	...	...	87	...	87
Murshidabad	386	21	407	30	...	30	...	...	...	7	...	7
Mymensingh	9,325	1,745	11,070	60	...	60	...	...	...	78	...	78
Nadia	...	1	1	27	...	27	...	...	...	4	...	4
Noakhali	1,833	658	2,491	5	...	5	...	...	...	22	...	22
Pabna	575	54	629	27	...	27	...	...	...	10	...	10
Rajshahi	4,008	2,107	6,115	62	...	62	...	...	...	52	...	52
Rangpur	...	126	126	13	...	13	...	...	...	24	...	24
Tipperah	2,522	834	3,356	18	...	18	...	...	...	41	...	41
24-Parganas	422	102	524	43	...	43	...	...	...	47	...	47
Cooch Behar	...	781	781	7	...	7	...	...	...	14	...	14
Ganges Diara...	...	...	...	26	...	26	...	...	...	107	...	107
(Miscellaneous)	...	...	...	...	...	...	...	...	...	...	...	...
Sikkim	...	...	...	...	...	...	...	...	...	1	...	1
Hijli	...	...	...	8	...	8	...	...	...	...	...	...
Total ...	58,385	13,351	71,736	643	...	643	...	...	...	1,028	1	1,029

III—*concluded.*

Office Outturn.

30th September 1918.

AND ISSUE OFFICE.

OF ALL KINDS.			FIELD BOOKS.			Calcutta Surveys Original and Fair Maps.			Thana Trijunction, Index and Traverse Plots, etc.			Traces for Reproduction.		
Issued.			Received.											
Previously.	During year.	Total.	Previously.	During year.	Total.	Previously	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.
Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.
39	40	41	42	43	44	45	46	47	48	49	50	51	52	53
...	...	...	63	...	63	...	..	...	220	...	220	2,372	...	2,372
...	...	...	...	...	...	..	...	...	32	...	32	...	...	...
...	...	...	3	...	3	...	...	...	22	...	22	...	...	...
...	...	...	3	...	3	...	...	...	8	...	8	181	...	181
...	...	...	34	...	34	...	...	...	20	...	20	...	...	...
...	...	...	28	...	28	2,335	...	2,335	...	...	...	...	...	...
...	...	...	62	...	62	...	...	...	43	...	43	3,374	...	3,374
...	...	...	127	...	127	...	...	...	451	...	451	...	...	...
...	...	...	32	...	32	...	...	...	61	...	61	...	...	...
...	...	...	11	...	11	...	...	...	35	...	35	212	...	212
...	...	...	38	...	38	...	...	...	438	...	438	...	...	...
...	...	...	68	...	68	...	...	...	9	...	9	...	...	...
...	...	...	3	...	3	...	...	...	11	...	11	...	...	...
...	...	...	98	...	98	...	...	...	320	...	320	...	...	...
...	...	...	2	...	2	...	...	...	25	...	25	...	...	...
...	...	...	35	...	35	...	...	...	95	...	95	...	...	...
...	...	...	7	...	7	...	...	...	33	...	33	...	...	...
...	...	...	196	...	196	...	...	...	388	...	388	176	...	176
...	...	...	2	...	2	...	...	...	20	...	20	266	...	266
...	...	...	103	...	103	...	...	...	308	...	308	...	...	...
...	...	...	1	...	1	...	...	...	44	...	44	...	...	...
...	...	...	4	...	4	...	...	...	68	...	68	90	...	90
...	...	...	4	...	4	...	...	...	37	...	37	...	...	...
...	...	...	66	...	66	...	...	...	232	...	232	...	...	...
...	...	...	11	...	11	...	...	...	35	...	35	...	...	...
...	...	...	20	...	20	...	...	...	17	...	17	...	...	...
...	...	...	35	...	35	...	..	...	54	...	54	16	...	16
...	...	...	23	...	23	...	...	...	...	...	...	...	...	...
2	...	2	81	...	81	...	...	...	357	...	357	...	...	...
...	...		...	...	...	...	..	...	...	...	...	...	...	...
...	...	...	2	...	2	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	2	1,172	...	1,172	2,335	...	2,335	3,383	...	3,383	6,687	...	6,687

APPENDIX IV.

Statement showing Traverse Survey and Reproduction of Maps of the Districts under Settlement.

Name of District.	Traverse Survey.							Reproduction.							Remarks for increase or decrease in expenditure.
	Total area of the district estimated for survey.	Area completed up to previous year.	Estimated programme for the year under report.	Area completed during the year under report.	Remaining.	Estimated cost for the year.	Actual cost for the year (including year control).	Forecast by the Director of Land Records, Bengal. Number of sheets.	Number of pulls.	Number of sheets received.	Actual number of copies reproduced.	Estimated cost for the year.	Actual expenditure for the year (including year control).	Difference between columns (9) and (11)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Square miles.	Square miles.	Square miles.	Square miles.	Square miles.	Rs	Rs					Rs.	Rs.		
Mymensingh	...	...	...	...	...	...	...	1,700	1,63,460	2,344	1,68,793	28,000	13,587	+444	
Noakhali and Tippera ...	...	...	...	...	...	...	...	2,369	1,75,040	2,356	239,268	22,500	17,1??	—13	
Rajshahi	...	...	...	...	...	...	...	2,300	3,00,625	2,177	279,416	25,500	26,949	—223	
Midnapur	...	...	...	...	...	...	...	3,195	1,74,375	1,800	305,700	...	33,871	+1,606	
Dacca	...	...	...	...	...	...	...	...	...	26	280	...	144	+29	
Jessore	2,900	268	1,041	622 (a)	1,310		46,396	...	...	...	...	...	...	...	
Bankura	2,621	966	179	175 (b)	1,477	} 45,128	37,308	...	...	...	...	...	...	...	
Burdwan	2,689	...	618	618	2,071		30,592	...	...	...	...	...	...	...	
Nadia	2,603	...	715	715	1,888	30,480	34,937	...	...	...	...	...	...	...	

(a) Excludes relaying of about 585 square miles of old area done during the year.
(b) Ditto 442 ditto ditto.

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REPORTS

ON

SURVEY AND SETTLEMENT OPERATIONS

IN BENGAL

FOR THE YEAR ENDING

30TH SEPTEMBER 1918.

CALCUTTA :

THE BENGAL SECRETARIAT BOOK DEPOT.

1919.

[Maximum limit, 30 pages.]

REPORT

OF THE

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS, BENGAL.

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DEPARTMENT OF LAND RECORDS, BENGAL.

No. $\frac{XXIV}{24}$*—1719.*

FROM F. A. SACHSE, ESQ., I.C.S.,
Director of the Department of Land Records, Bengal,

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,
REVENUE DEPARTMENT.

Dated Calcutta, the 14th January 1919.

SIR,

I HAVE the honour to submit the following report on the survey and settlement operations conducted under the control of this Department during the year ending 30th September 1918. Except for the last sixteen days in September, when he took privilege leave, and the Personal Assistant remained in charge of the current duties, Mr. M. C. McAlpin, I.C.S., was in charge throughout the whole year.

Introductory.

2. **Major operations (Imperial).**—The district operations in Jessore and Bankura which had been postponed in 1915 as a measure of war-economy were resumed during the year. This was absolutely necessary to maintain even the reduced 3-party programme which was decided upon in the previous year. The only part of the districts previously taken up in which cadastral survey still remained to be done was the last block of the Tippera-Noakhali Settlement. The Rajshahi party had a small area of attestation pending in the diara strips of Murshidabad and Malda, but the other districts—Dacca, Mymensingh and Midnapore—were in their closing stages, and according to the programme should have been completed within the year. The Dacca office was finally closed, but in Mymensingh and Midnapore, which were a year behind Dacca in taking up their last cadastral blocks, some branches of work were still in full swing. The total outturn of cadastral survey was 2,517 square miles as opposed to 1,211 in the previous year, 1,811 in 1915-16 and 3,602 in 1914-15. Attestation was completed in 1,676 square miles and final records were prepared for 3,142 square miles against 1,891 and 3,468 square miles, respectively, in the previous year.

3. **Minor operations (Provincial).**—Following the policy adopted in the first three years of the war, no regular re-settlement operations in Government or temporarily-settled estates were taken up unless the anticipated increase of revenue would more than cover the expenditure. As a consequence, the current settlements of a large number of estates were summarily extended by the Collector. As soon as the financial stringency caused by the war is relaxed, there will be heavy arrears to make up in many districts. The only districts in which minor operations under the control of the Collector with a view to the re-settlement of Land Revenue were undertaken during the year were Howrah, the 24-Parganas, Khulna, Mymensingh and Faridpur. The total area dealt with was 57 square miles.

The preparation of a record-of-rights in private estates was also confined to a small area. Several applications in Burdwan were rejected in view of the prospect of that district being taken up by a Major Settlement party at no very distant date. A number of applications in the 24-Parganas were rejected

by the Commissioner. Some new work was admitted only in Hooghly, Howrah, Khulna and Dinajpur.

On the whole in Provincial operations (both Land Revenue Settlement and Advances Recoverable) only 17·92 square miles were cadastrally surveyed and records of 57·13 square miles were finally published.

4. **Area of Records-of-Rights.**—The total area of which a record-of-rights has now been completed in the Presidency is 30,203 square miles.

PART I.

Major operations.

5. **Mymensingh.**—Khan Sahib Saiyid Muazamuddin Hosain, Deputy Collector, was Assistant Settlement Officer in charge, the Collector being the *ex-officio* Settlement Officer according to the Government Rules. Towards the end of September he joined the Jessore Settlement and Babu Hira Lal Sen, SubDeputy Collector, took over charge.

6. *Progress and Expenditure.*—According to the programme and estimates sanctioned by the Government of India in 1915, all work in this settlement should have come to an end in the year under report. It, however, proved impossible to finish the recovery and case-work in those villages of the Tangail and Kishorganj Subdivisions where final publication had been delayed by proceedings instituted under Act IX of 1847. With two exceptions, all the proceedings instituted before final publication in the minor rivers of the district have been confirmed by the Board and now only 18 villages remain to be printed. There must, however, be some delay in filing the 105 and 106 cases and a certain number of cases remanded by the Special Judge are also awaiting retrial.

The problem of resumption in the Jamuna river proved very difficult. The Director of Land Records forwarded the report of the Settlement Officer to the Board with his letter No. $\frac{\text{XIV}}{55}$—51T., dated the 10th October 1917, and the Board decided that the matter could not be decided on general principles. They directed a further enquiry into the old papers in the Collectorates and in the possession of the interested parties as regards particular sections of the river by a special officer Rai Sahib Hara Kishore Biswas. This officer was not able to join until after the Pujas.

The complete termination of work in this settlement will depend to some extent upon the result of this enquiry, but all other resumption proceedings and case-work should be finished in the current year. Even with the extra expenditure on resumption there is no apprehension that the total estimated gross cost will be exceeded. Up to the end of the year the actual settlement expenditure was Rs. 40,09,570 leaving a margin of Rs. 1,45,027 against the estimated total of Rs. 41,54,597. The following statement gives details of the work which was left over for the current year :—

Final records (printing)	64	sq. miles.
Computation and recovery	122	„ „
Case-work—		
Section 105	15,000	tenancies.
„ 106	350	cases.
Diara resumption	145	proceedings.
Making over of records to the Collector ...	About $\frac{2}{3}$rds of the whole.	

Appendix II explains the cost and cost rates both for the year and up to date, thus :—

Branch of work.	Actual cost rate per sq. mile. For the year.	Actual cost rate per sq. mile. Up to its end.	Cost rates according to the complete estimate.	Standard cost rates.
	Rs.	Rs.	Rs.	Rs.
16″ maps	16	7	8	6
Final records (printing) ...	78	42	33	54
Computation and recovery ...	39	14	26	16
Case-work	19	20	26	16

Cost rates during the year for the first 3 items were high, as is inevitable where no compact blocks are available, and it remains only to deal with scattered items of work which were left to the end on account of particular difficulties or complications. As regards printing, the average number of interests in the area dealt with in the year was 400 against the district average of 260, and the cost rate includes the second printing of a certain number of missing khatians. There has, however, been no excess which will affect the cheap rates in all branches for the settlement as a whole, and, in spite of the fact that the operations will continue during the current settlement year also, the total estimate will not be exceeded.

7. *Case-work.*—Cases under sections 105 and 106 of the Bengal Tenancy Act were the main items of work done during the year. Six officers were employed throughout the year. Under section 105, fair rents of 56,598 tenancies were settled, and under section 106, 1,321 cases were disposed of, the average monthly outturn of an officer working out to 789 tenancies under section 105 and 18 suits under section 106. The cases under section 105 resulted in an increase of tenants' rents by 25 per cent., of which a little over half was due to excess area, the balance being due to rise in the price of staple food-crop. By strict calculation this latter ground would work out at a rate of 4 annas to 6 annas per rupee, but in view of the abnormal rise in the prices and the increasing cost of cultivation the officers ordinarily allowed enhancements at half the maximum rates. The Special Judge has generally upheld the decisions of the officers on this point.

8. *Recovery.*—Three Kanungos were exclusively employed on recovery work throughout the year. The total amount realised was Rs. 5,31,043 and allowing for amounts struck off, the total pending for recovery at the end of the year barely exceeds a lakh. The greater portion of this amount could have been realised within the year but for the abnormal flood in Kishorganj Subdivision, which materially affected the condition of landlords and tenants. Out of the total amount recovered Rs. 1,21,644 was realised by the Certificate Procedure. This represents demands long outstanding from the landlords of the earlier blocks who had not fulfilled their promises of easy payment by gradual instalments.

9. *Diara.*—Resumption proceedings of accretions to 241 estates started during the previous year were completed, and 163 new proceedings were taken up during the year of which 18 have been submitted to the Board and 145 are pending at various stages. The amount spent on resumption up to date is Rs. 29,489 and the amount expected as annual revenue is about Rs. 39,000.

10. *Making over of records to the Collector.*—This work was commenced in April but up to date only the following records have passed into the charge of the Collectorate staff :—

	Thanas.
Case records	6
Final ,, ...	11
Mauza bundles	5
Collector's 2nd copy	5
Sale records and maps	1
Section 103A., Objections	7
Boundary disputes (with registers)	5

There are altogether 28 thanas in the district and the surplus copies of khatians and maps which are available for sale were not touched. Arrangements have been made for the employment of a larger staff to expedite the work.

11. **Dacca.**—The programme according to the total sanctioned estimate comprised the closing down of the settlement office after completion of the balance of case-work. This was successfully accomplished, thanks to the able and efficient management of Mr. Ascoli in all the previous stages of this operation. Babu Kali Pada Maitra, Deputy Collector, was in charge during the first three months of the year, after which Babu Pramatha Nath Datta, Sub-Deputy Collector, worked at headquarters. Both the officers are to be congratulated on successfully conducting the closing stages which are always from their nature tedious and uninteresting.

Work done in addition to the scheduled programme comprised—

(1) Recovery of Rs. 53,188.
(2) Making over the balance of records to the Collector.
(3) Re-writing of the boundary mark *mujmilis* and registers.

The main item of work done was, however, case-work including noting of decisions in the several volumes of the printed record. In cases under section 105, 16,746 tenancies were involved, and a rental of Rs. 95,249 was increased to Rs. 1,24,401 by way of settlement of fair rent. More than half the increase was due, however, to increase in area. The maximum enhancement allowable under section 30(*b*) of the Bengal Tenancy Act generally worked out to 4 annas per rupee, but in view of neighbouring rates and other attendant circumstances (*e.g.*, the prevalence of the disease of *ufra* in paddy plants in the Bhowal Estate) the enhancement actually allowed varied from 1 anna to 2½ annas per rupee, except in a few cases where 3½ annas was allowed. Only 32 cases now remain pending. They cannot be taken up till certain suits under section 106 transferred to the Civil Court are disposed of.

Four hundred and fifty-one suits under section 106 were disposed of by the settlement staff. The result was that in 265 cases the records were modified. Twenty-four appeals were disposed of by the Special Judge in 18 of which the decisions of the Assistant Settlement Officers were upheld, in 3 cases modified and in 3 reversed. Two hundred and twenty cases were transferred to the Civil Cour for disposal.

There were 1,330 cases for correction of *bonâ-fide* mistakes in the record during the year, making the district total 2,461. The number is small when considered with the total number of interests recorded, viz., about 14¼ lakhs. Corrections had to be allowed only in 1,777 cases.

There were 62 cases of commutation of produce-rent to cash. In 40 cases the applications were rejected and in 22 commutation was allowed.

The expenditure during the year was Rs. 44,182 against the estimate of Rs. 45,000, bringing the total of the operation (subject to final verification by the Accountant-General, Bengal) to Rs. 24,73,945 against the estimate of Rs. 25,06,658. Excluding the remissions already granted, the following sums still remain to be recovered out of the total computed demand :—

	Rs.
(1) 510 certificate cases made over to the Collector ...	19,817
(2) Dues from the Bhawal Raj	8,813
(3) 140 certificate cases made over to the Settlement Officer of Tippera-Noakhali	4,161
Total ...	32,791

12. **Midnapore.**—Mr. A. K. Jameson, I.C.S., Settlement Officer, was appointed Additional District Magistrate in addition to his own duties from the beginning of the year till 6th February 1918, when Mr. F. W. Robertson, I.C.S., Settlement Officer of Bankura, took over charge of the Midnapore Settlement also. Babu Bijay Bihari Mukharji, Deputy Collector, worked as Assistant Settlement Officer in charge at Midnapore.

13. *Progress.*—Appendix II exhibits the programme and performance during and up to the end of the year. According to the last sanctioned total estimate, all work in this settlement should have been finished during the year under report. But in spite of the large disposal of case work (113,109 tenancies under section 105, 3,073 cases under section 106, and 3,841 applications under section 40), a considerable quantity still remained to be done. The institutions were greatly in excess of the experience of other settlements. There was also an unexpectedly large number (3,172) of objections to the rent-roll under section 112 of the Bengal Tenancy Act in pargana Silda. These were all disposed of, but the subsequent stages fell into arrears. About 1,500 appeals had been filed against the decisions of the Objection Officer which not only assail the relaying of certain civil court maps in particular villages, but the whole basis of the elaborate procedure by which fair and equitable rents were fixed for the mandals and their tenants. The diara resumption proceedings also took longer than was estimated, and some are

still pending for the orders of the Board of Revenue. There is, therefore, a pending programme for the current year which stands as follows :—

Statistics	...	230 square miles.
16" maps	...	15 ditto.
Printing of record	...	290 ditto.

Case work—

Section 105	...	71,163 tenancies.
„ 106	...	2,720 cases.
„ 10	...	5,639 applications.

There was also an arrear in recovery excluding pargana Silda amounting to Rs. 2,82,336. In order that cases under sections 105 and 106 might be filed over as large an area as possible within the time originally fixed in the programme for taking them up, it was necessary to com plete the final publication of 1,153 square miles in one year and the Recovery Officers had to move from one camp to another without waiting to sweep up all the pending demands as is usually done.

14. *Expenditure.*—As shown in Appendix II the actual expenditure during the year was Rs. 2,88,675 against the estimate of Rs. 3,52,894. The saving is only apparent, as it was due to arrears which have been left over for the current year. The following statement compares the cost rates of the main items of work done during the year :—

	Estimate.		Actual.	
	Amount.	Rate.	Amount.	Rate.
	Rs.	Rs.	Rs.	Rs.
Final records	62,042	61	43,467	107·85
Case-work	89,990	27	73,698	31·04

The excess in the case of printing is due to the fact that the average number of interests per square mile dealt with was 521 against 448 in the estimate, and also to the circumstance that the work was in its closing stages. In view of the very large number of cases instituted, the excess in the cost rate per square mile of case-work requires no explanation. The excess will be more than sufficiently covered by receipts in court-fees.

The total expenditure up to the end of the year was Rs. 27,95,864 against the estimate of Rs. 29,47,078 The probable expenditure during the current year will bring the total to nearly half-a-lakh in excess of the last estimate, but this sum has already been realized asexcess court-fees over and above the estimate made under this head at the same time. The excess expenditure is mainly attributable to the abnormal number of cases under sections 105 and 106, but the office work involved in preparing the material necessary for the disposal of objections to the proceedings under section 112 in the Silda pargana has been very heavy and has necessitated the employment of a large staff of clerks on this branch alone.

15. *Case-work.*—Case-work was the main item of work in the settlement. Three officers were employed on it at the beginning of the year and eleven at the end. Appendix V gives the result of proceedings under section 105. A total raiyati rental of Rs. 3,20,867 was increased to Rs. 3,73,860, *i.e.*, by 16·52 per cent. The success of the landlords in proving excess area under section 25(*a*) of the Bengal Tenancy Act was unexpected and accounts for nearly $\frac{3}{4}$ths of the total increase. The tenure-holders' rents were subjected to an enhancement of 30·65 per cent.

16. *Commutation.*—Though large compared with other settlements, the number of commutation cases filed in the thanas covered by the District Settlement was conspicuously less than in Contai. It is explained that the tenants paying a fixed proportion of the crop in that subdivision suffered from a partial failure of the crops in the season after the new cash rents had been fixed, and then changed their mind as to the utility of the proceedings.

17. *Diara.*—Excepting the enquiry, which is being made regarding the river Cossye, all resumption proposals were received by the end of the year and submitted to the Board for orders. The rivers concerned are (1) the Hooghly, (2) the Rupnarayan, (3) the Haldi and (4) Bagda Rasulpur, but the total area is not large. The proceedings, if approved, will increase the revenue-roll of the district by about Rs. 8,886.

18. **Rajshahi.**—Mr. W. H. Nelson, I.C.S., was Settlement Officer except for a period of about two months from the 2nd August to the 30th September 1918, when he was on deputation to military duty. Babu Ramesh Chandra Sen, Deputy Collector, was Charge Officer throughout.

19. *Progress.*—Appendix II shows the programme according to the sanctioned total estimate together with performance for the year and up to date. The main items of work originally arranged for the year under report are as follows:—

(1) Completion of attestation of the last block "E", which consists of the whole of the Malda diara and that portion of the Murshidabad diara which faces it on the other side of the Ganges.

(2) Disposal of objections and Janch of the last block "E" and a portion of the previous block "D."

The estimated area of block "E" was 420 square miles, but the actual area increased to 480 square miles. Apart from a few objection cases held up for local inquiry, which could not be done when the ground was covered with water, the whole programme in both these branches was completed. There were no special difficulties or features of interest.

(3) Printing of records of block "D."

In addition to this programme the printing of previous blocks to the extent of 816 square miles was in arrear. The press made good progress in dealing with 1,167 square miles, but there is still a balance of 544 square miles against 350 in the printed estimates for the current settlement year.

(4) Recovery of block "C."

In recovery also there was an arrear of previous years equivalent roughly to the demand from half the area of block "B." Adding the sum to the original programme for the year, the amount to be recovered according to the total estimate was 7 lakhs and a quarter. Rupees 5,28,269 were actually realized. Considerable damage had been done by floods in the Noagong Subdivision, and for this reason applications for time were liberally granted and no attempt was made to realize any demands in the affected area by the certificate procedure.

The actual total area covered by the operations is 3,640 square miles against 3,820 in the total estimate, the decrease being due to diluvion on the banks of the Ganges. As the operations are nearing their close, the state of work will be best understood by comparing what still remains to be done with what should remain according to the total estimate:—

Branch of work.	According to the total estimate.	Actually pending.
Cadastral to attestation ...	... Nil	Nil
Objections ...	... Nil	12 sq. miles.
Janch	... 120 sq. miles	95 „ „
Statistics	... 160 „ „	462 „ „
16″ maps	... 350 „ „	630 „ „
Final records ...	.. 350 „ „	644 „ „
Computation and recovery	... 1,020 „ „	1,570 „ „
Case-work ...	... 1,660 „ „	2,843 „ „

It is probable that a portion of case-work will go into the next settlement year, but this need not cause any apprehension as it will not affect the net recoverable amount,

20. *Expenditure.*—The expenditure of the year amounted to Rs. 3.45,858 against Rs. 2,17.384 and that up to the end of the year to Rs. 27,27,862 against Rs. 26,72,598 in the total estimate. The excess in the year's expenditure was really due to the additional amount of work done. The

excess in the expenditure up to date is attributable to the excess over the estimate which has been found throughout the district as regards the number of plots and interests to the square mile. The following statement compares the cost rate per square mile :—

Branch of work.	Rate according to the total estimate.	Actual rate.		Standard rate adapted to actual plots, interests and objections.	
		For the year.	Up to date.	For the year.	Up to date.
	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral	110	...	...	100	115
Khanapuri	37	...	49·6	...	47
Initial Recess	18	...	13·6	...	18
Bujharat	87	...	107·25	...	95
Attestation	61	66·25	84·65	87·25	91
Objections	24	20·66	16·4	40	27
Janch	20	17·2	19·5	20	20
Statistics	10	5·2	7·3	10	10
16″ maps	...	5·8	5·75	6	6
Printing	...	76	66·80	107	95
Computation and recovery	28	30·5	21·4	29	29

The main excess was in the cost rate of Bujharat. There have, however, been marked savings in almost all other branches of work. It is probable that the total gross estimate will be slightly exceeded ultimately, but in spite of the large incidence of plots and interests which average 1,433 and 447 per square mile, respectively, the excess will not exceed 4 per cent.

21. *Jamabandi and Diara.*—The total area under resettlement of land revenue was 68 square miles. Rate enquiries of all Nadia and Pabna estates under resettlement covering an area of 43 square miles were finished in the year. The confirmation reports now require to be expedited, so that the new rents may come into force in 1919 in as many estates as possible.

Local enquiries for the purposes of *Diara* resumption in those areas of Nadia, Pabna and Rajshahi districts of which the attestation was completed in the previous year, were finished during the year. Proceedings in respect of 46 estates covering an area of 11 square miles were drawn up in the year and it is expected that the work will be finished in 1919.

22. *Case-work.*—Cases under section 105 involving 24,230 tenancies and 943 cases under section 106 were disposed of during the year. The rents of the raiyat defendants were increased by 17·84 per cent. of which about two-third was due to excess area. The rents of tenure-holders were enhanced by 23·34 per cent. on the average.

23. *Miscellaneous.*—Boundary mark mujmilis were finished in all thanas excepting two. Cess revaluation of the district which is being done by the Settlement Department is nearing its completion. Out of 4,551 estates including separate accounts, 3,412 estates have been completed. The total increase in cess up to date is Rs. 1.00,286 and the total cost Rs. 43,963. The increase in cess in the year was Rs. 33,300 and the cost Rs. 7,750.

24. **Tippera-Noakhali.**—Mr. W. H. Thompson, I.C.S., was Settlement Officer throughout the year. In the beginning of the season there was only one Charge Officer, Khan Sahib Kabiruddin Ahmed. Babu Kalipada Maitra, Deputy Collector, joined as second Charge Officer in January and worked till the middle of June Mr. J. M. Pringle, I.C.S., was also employed as Charge Officer in February. Maulvi Abdul Jalil Khan, Deputy Collector, was in charge of headquarters.

25. *Progress.*—Appendix II exhibits the programme and performance both for this year and up to date. The main items of work for the year were :—

(1) Completion of Cadastral to Bujharat of the last block 'D'—estimated area 750 square miles, area actually found 707 square miles.

(2) Attestation of block 'C'—estimated area 700 square miles, area actually found 745 square miles.

(3) Janch of ¼th of block 'B' and ¾ths of block 'C'—estimated area 750 square miles, actual area 766 square miles.

(4) Printing of final records of block 'B'—estimated area 700 square miles, actual area 833 square miles.

All these items were completely finished and in addition 523 square miles (*i.e.*, $\frac{3}{4}$ths of the last block 'D') were attested during June to September in advance of the programme. This was necessary as the press had made such good progress that otherwise there was a danger of a temporary stoppage for lack of material and this has a demoralising effect on the staff.

(5) Recovery of costs in the remainder of block 'A' not done before the Pujas of 1917 and in one-third of block 'B.'

A sum of Rs. 4,35,071 was collected which falls little below the total sum assessed. Collections were extremely satisfactory, the attendance of all classes of tenants being good, and there are very few small demands pending in any village. Allowing for changes in the area of the first two blocks, practically the full programme was completed.

The state of the work in this settlement will be best understood from a comparison of what actually remains to be done with what should remain according to the sanctioned estimate :—

	According to the sanctioned estimate.	Actually remaining.
Cadastral to Bujharat ...	Nil.	Nil.
Attestation	750 sq. miles	160 sq. miles.
Janch	925 „ „	688 „ „
Final records	1,450 „ „	1,212 „ „
Recovery	2,092 „ „	2,051 „ „

Even allowing for the fact that the total area has turned out to be 2,991 square miles against the estimate of 3,200 square miles, work is in advance of the programme in all stages except recovery, and the Settlement Officer has hopes of winding up the operations six months, if not one year, in advance of the scheduled time.

26. *Expenditure.*—As shown in Appendix II, the total expenditure for the year was in excess of the estimate by Rs. 58,966, viz., Rs. 5,64,067 against Rs. 5,05,101. This was mainly due to the additional work done in attestation and printing. The cost rate of Bujharat (Rs. 96 per square mile) was higher than the estimated rate (Rs. 86), but not much above the standard rate (Rs. 94). The cost rate of Janch was Rs. 32 against Rs. 15 in the estimate and Rs. 20 in the standard rates. This high rate was, as in the previous year, due to the employment of Kanungos in Janch. It, however, reduced the cost rate of *supervision* to which the salaries of Kanungos during the recess are ordinarily charged. The scarcity of Civilian Charge Officers has still further reduced the cost of supervision. The only item in which the expenditure may exceed the standard rate is contingencies, and for this the high price of paper and the necessity of building mufassal offices are largely responsible. The settlement is, therefore, maintaining its high reputation for economical working and the total expenditure up to the end of the year shows a saving of Rs. 56,625 out of an estimate of Rs. 19,08,653. In view of the quality of the work done and the progress in advance of programme in several branches, this is distinctly satisfactory.

27. *Cadastral and Khanapuri.*—This was an oval-shaped block comprising all the remaining portions of the Tippera District in the Revenue Thanas of Muradnagar, Chanduria, Laksam, Comilla and Chauddagram. The southern portion has a gradual slope towards the west from the line of diminutive hills called the Lalmai Range on the borders of the Roshnabad estate. The undulating nature of the country necessitated extensive use of the device of "horizontal-chaining." Otherwise, there was no other matter of special importance or difficulty, which was not noticed or solved in the previous blocks. The average number of plots per square mile was 1,518, exceeding the average of previous blocks by about 100.

In the southern part of the area jute is not popular. An early sowing of summer rice usually allows a second crop in winter and the tenants do not go in for experiments. The soil is not as suitable for jute as the newer alluvium on the banks of the big rivers, while good facilities for steeping are also wanting. In the northern part, especially in Muradnagar, jute is common and the tenants find it by far the most paying crop. In the highest lands, where the water is not expected to stand more than 2 or 3 feet deep in the fields in August, *Aus* and *Aman* are both grown. But in lands

lower down, jute is preferred. *Boro* rice is grown, to some extent, in scattered patches of low land where water still stands in January and February. *Rabi* crops are rare, the commonest being *Khesari*, which is sown broadcast among the stalks of the *Aman* paddy, as soon as the crop is cut before the ground has time to get hard.

28. *Attestation.*—Khanapuri and Bujharat were finished in block 'D' with creditable ease and punctuality. This success is attributable mainly to the general good quality of the experienced set of Kanungos with which this settlement has been manned throughout. The attestation of block 'C' was completed within the scheduled time and the progress in the disposal of objections—which were remarkably few, viz, 7,129 against 17,888 of the year before—was so satisfactory that it was decided to take up attestation of block 'D' also immediately after *Bujharat* instead of waiting till the next field season as is usually done. To avoid complaints, the landlords were informed of the proposal, and if the proprietors of any estates had objected, their villages would have been kept back for the following year. Everybody, however, seemed anxious to expedite the proceedings and eventually attestation of three-fourths of the Khanapuri area was also completed in advance of the programme.

There was nothing of special importance not previously noticed, except that in this block for the first time the settlement came across illegal enhancements on a large scale. There are numerous landlords in pargana Hosanabad and, with the exception of the Nawab of Comilla, they had all introduced enhancements which were in defiance of section 29 without any attempt to cloak the illegality. The disputes about tanks were interesting and instructive. The tenants put forward the claim that tanks excavated by them—and these were numerous—formed rent-free holdings, and produced a variety of documents which they called *sanads*. Some of the oldest ones quite frankly gave the tenants a rent-free right, others were in the form of permissory grants to excavate a tank and nothing more. The more recent documents, however, while giving the tenant permission to excavate a tank within his holding, and to use the water, stipulated that the tank would be the landlord's property and all fish caught in it his perquisite. In some recent grants the tank is recognised as part of the holding without assessment, but the concession is amply made up by doubling or trebling the rent for the banks. Further large sums have to be paid as *salami* before the permission is given. The policy of the landlords in regard to these tanks indicates an increasing selfishness. Instead of encouraging the tenants to make the most necessary improvements in the village water-supply at their own expense, they do everything in their power to tax their dependents for their public spirit.

29. *Jamabandi.*—Important progress was made in the settlement of land revenue in Government and temporarily-settled estates. Altogether 52 estates with an area of 118 square miles were dealt with. The rent-rolls confirmed covered a total area of 110 square miles, and a total rental of Rs. 64,008 was increased to Rs. 92,131, *i.e.*, by 44 per cent., the bulk of the increase being due to rise in the price of staple food-crops justified by neighbouring rates. Government revenue increased from Rs. 43,021 to Rs. 78,798, *i.e.*, by 83 per cent. This was mainly due to the fact that tenure-holders, hitherto assessed too lightly, had their rents fixed on the basis of "gross rents" according to section 7 of the Bengal Tenancy Act.

30. *Case-work (sections 105 and 106).*—A remarkable feature was the paucity of cases. Only 13,914 tenancies were brought under section 105 and 331 cases were instituted under section 106 in an area of about 1,000 square miles. Fair rents of 960 tenancies were settled and in respect of the raiyats the landlords obtained an increase of 38 per cent. on the grounds of excess area and rise in the price of staple food-crop. Cases in respect of 698 tenancies were withdrawn.

31. *Assessment of costs.*—In Noakhali the Settlement Officer undertook a cess revaluation for the district and this is nearly completed. Landlords, tenure-holders and raiyats were all assessed on the basis of this revaluation. The assessment varied from two to four times the difference between the cess recovered and that paid. In Tippera where no cess revaluation is due,

the assessment is based on area. Tenants pay 5½ annas per acre and 8 annas has to be contributed by the landlords of all grades. The superior landlords of permanent tenures at fixed rates pay one-quarter of the landlord's share and this is the main feature in which the apportionment of costs differs from the system adopted in Rajshahi.

32. The Head Office of Comilla had the honour of a visit from His Excellency Lord Ronaldshay in August, and the Hon'ble Mr. J. G. Cumming, Member of Council, inspected a case-work camp at Noakhali in the same month. The Commissioner of Chittagong spent a morning at the office in April.

33. **Jessore.**—The traverse of the first block in the north-east of this district was done in 1914-15 and a Deputy Collector and several Kanungos were deputed in July to make the usual preparations for equipping and sending out cadastral camps immediately after the Pujas in the following year. The full staff with the late Mr. Steele as Settlement Officer had joined before the orders postponing the settlement indefinitely were issued, and some time elapsed before all the camps could be called in and the staff satisfactorily distributed among other settlements. The late postponement was due to a reluctance to face the serious effects on the morale and efficiency of the Kanungo staff of even a partial and temporary dissolution, and the same consideration led to the taking up of the settlement after two years' postponement in the autumn of 1917. In the interval many of the traverse stations had disappeared and the arrangements for what was almost a complete relay occupied much time. Only four out of 11 circles could be started at the beginning of the field season, and the sheets of the extensive *bil* area in Narail thana were not received until the end of May, when the season in which work of any kind was possible was already over.

Mr. McAlpin visited the settlement in March and came to the conclusion that the first year's programme must be considerably reduced and the settlement converted into four blocks. His revised programme and estimate was sanctioned by Government in November 1918. In view of the unhealthiness of the district, the difficulty of com munications, and the lethargy of a decadent population, it is probable that in the most favourable circumstances a programme by which a district of 2,900 square miles was to be dealt with in three blocks, would have proved too ambitious.

The revised programme allowed for the completion of 812 square miles of kistwar, 812 of khanapuri and 425 of bujharat instead of the original area in all branches of 994 square miles. In the end the earlier stages were completed of 839 square miles, and bujharat of 535 square miles. In the current season all stages up to attestation will be completed of the original block A, together with the usual first season's programme in respect of 656 square miles of the original block B. Kaliganj thana has been transferred from block B to block C.

There were 1,700 plots and 700 interests to the square mile; so judged on this basis the programme according to the original estimate was more than completed. As in Bankura, a large portion of the work was done in the season not usually devoted to field work. Considering the unsuitability of the Jessore climate, this involved a heavy strain on the staff, and it is probable that some of the village maps will require very careful checking at attestation. The system of land tenure in the Magura thana contains many of the complications which made Faridpur the most difficult and expensive settlement yet encountered, but the excessive number of khatians is not so much due to subinfeudation and coparcenary on a large scale as to the large number of under-raiyats with one or two plots under different raiyats. In spite, therefore, of a large number of *barga* raiyats for whom khatians will have to be opened at attestation, it is hoped that the attestation officers will be able to reach the standard outturn of 2,500 khatians a month.

Small rent-free holders are numerous and the deficiencies in the landlords' papers made the identification of lands held by the same persons under different rights very difficult. In villages of which parts had been leased to indigo factories the action of the planters in giving *kaimi maurasi* leases to all classes of tenants without regard to the title of the persons from whom they had themselves temporarily leased the lands, has given rise to much confusion. The people are very litigious and much time was lost at bujharat

in examining bundles of civil court decrees, which were thrust into the hands of the Kanungos, without previous examination or sorting, on the mere chance that they might help the case of the disputants who produced them. The rents have remained unchanged for years, and the relations between landlord and tenant are on the whole good.

One hundred and forty-four boundary disputes were filed, most of which being due to the shifting of rivers and khals, which had at one time marked the boundaries of villages, were of the kind which are most troublesome to decide. In some places the Madhumati had oscillated to the extent of two miles in recent years, and the landlords of both mauzas on the banks claimed to be collecting rent from the tenants in the intervening chars. The lands were valuable and in some cases the tenants had been paying rent to both sets of landlords, in others to neither. It was difficult to ascertain the facts as the evidence of the cultivators would vary from day to day with the pressure brought to bear upon them by the rival claimants.

In the two financial years 1915-16 and 1916-17 an expenditure of Rs. 1,28,167 was incurred for part of which there is little to show in the way of definite results. Not only was the cost of traverse doubled but much of the expenditure on supervision and contingencies went a very little way to reduce the normal expenditure of the first field season on these branches. The expenditure actually incurred in the settlement year under report is compared with the estimates in the following table :—

	Programme.	Performance.	Cost rate as estimated for operations as a whole.	Actuals.	Standard cost rate (adapted to 1,700 plots and 700 interests per square mile).
	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral ...	994	839	117	109	115
Khanapuri ...	994	828	40	77	53
Initial Recess ...	994	828	26	14	18
Bujharat ...	994	535	86	115	109

There is, therefore, already a saving over the estimated rates in kistwar and office recess, which, if the experience of other settlements is a guide, will probably be more pronounced in each succeeding block. As the comparison with the standard rates shows, the excess in Khanapuri and bujharat is partly accounted for by the abnormal number of khatians to the square mile. There has been a large saving in supervision due to the employment of cheap officers and the fact that all the Kanungos were fully employed on field work in the recess. The saving in contingencies is more than counterbalanced by the expenditure incurred in 1915, which is not shown in Appendix II.

Mr. Klingenstein was Settlement Officer from the 1st September 1917 until his tragic death on 13th February 1918. The heavy task of taking up the broken threads in the middle of the field season and restoring order fell on Mr. Pringle who had been Mr. Thompson's Charge Officer in Tippera for one month only. The comparatively satisfactory position in which the settlement now stands and the completion of the revised programme under the most disheartening conditions is entirely due to his unflagging energy and devotion. Mr. Pringle remained in charge until he went on military training on 2nd August 1918. Khan Bahadur Abdul Momen joined as Settlement Officer on 1st October. Babu Sudhir Chandra Ghose was in charge during the intervals.

In addition to the malaria for which the district is notorious cholera worked havoc among the amins and menials of the Settlement, and one Kanungo died of this disease at his camp. The Settlement office is a good one, and the Settlement Officer has been provided with a two-storied house by the Public Works Department. The record room is in course of construction by the same department.

34. **Bankura.**—This was originally a three block district and but for the curtailment of the settlement budget, which followed the outbreak of the

war, would have started in 1915-16. In all but one of the major settlements begun before the war field work was due to finish in 1917, so if no new settlements had been undertaken in 1917-18 there would have been no alternative but to disband the whole of the Kanungo staff, a course which would have inflicted untold suffering on a deserving set of men and would have made the organisation of new settlements after the war extremely difficult and expensive. Permission was, therefore, obtained to take up both Bankura and Jessore in the year under report, and at the beginning of 1918 it was decided to include the Asansol subdivision of the Burdwan district in the Bankura programme with the idea of settling numerous difficulties which had arisen as to the title of coal-mining Companies in the lands in their occupation. The Settlement was, therefore, converted into one of four blocks, and a revised programme and estimate was sanctioned by the Government of India in their letter of 28th May 1918.

The whole of block A had been traversed in 1914-15, and in the two years that elapsed before the cadastral staff entered the district all the traverse stations in the greater part of the area had disappeared. This was not discovered until Mr. Robertson joined as Settlement Officer on 4th October 1917. In some respects the work of relay is more troublesome and protracted than an original traverse, which breaks fresh ground, and the Director of Surveys could only send the traverse plots at long intervals in small batches. Many of the Kanungos failed to get into harness until January, and in the meantime the amins got tired of sitting idle and went home. The sheets of 200 square miles done on the square traverse system in the jungle area were not received until April and May. In the circumstances it is greatly to the credit of the whole staff that bujharat was completed in the whole block of 971 square miles before the end of the year, especially as there was a good deal of illness and two Kanungos died of enteric fever. It is true that the field work continued up to he Pujas, but Bankura is a dry district and possibly the climate in July and August is more favourable to efficient work than that of April and May.

The country as a whole is undulating, and there are a few isolated hills rising to a height of 800 feet above the surrounding plain. In spite of the pioneer labour of the Sonthals, the district contains a large proportion of uncultivated land. The thanas taken up in A block lie in the south of the district and are a continuation of the Chota-Nagpur plateau. They belonged to the "jungle mahals" of the Manbhum district and were not included in Bankura until 1885. The soil is largely red laterite and big boulders on the surface are common. Besides innumerable *jhors*, or rocky channels, the rivers Gandheswari, Dwarakeswar, Seleye, Cossye and Bhairab-Banki, all flowing in a direction which is mainly north-west to south-east, provide an adequate drainage system for the whole area covered by the first year's operations.

The rivers are of little or no use for purposes of irrigation, but supply good drinking water for the villages situated near their banks.

The laterite soil makes the building of roads an easy task, and communications are on the whole good and sufficient. With the onset of the rains, however, the flooding of the rivers makes touring almost impossible, the poverty of the District Board making it difficult for them to maintain an adequate system of ferries. The only railway is that running from Bankura to Adra.

The district is singularly healthy, but leprosy is common especially among the aboriginals.

Paddy is the only crop of importance in the district, and in spite of terracing and a primitive system of irrigation by means of tanks with banks on three sides, which are cut, when the water is required for fields at a lower level, the harvest is precarious. *Aman* can only be grown in the lowest groups of fields and *aus* in the higher terraces seldom yields a paying crop. The figures which the Settlement Officer gives for outturn, however, indicate that the manuring over which the cultivators take more pains than in many other districts of Bengal, does not go without reward. The tenants are very poor, but on the other hand the rents they pay are often nominal. Produce rents are very common and there are cases where a fowl, or even a

single vegetable, has been recorded as the rent of about an acre of land. The southern thanas are mainly inhabited by Sonthals who very seldom handle money, and their borrowings from their money-lenders usually take the form of grain. A recent amendment of the Tenancy Act has placed considerable restrictions on transfers among aboriginal tribes and has, therefore, deprived them of much of their credit with their former bankers. The Settlement Officer, therefore, suggests that as the bad harvest of this year will probably necessitate some form of public relief, the best plan will be to open grain godowns on the co-operative system.

Mr. Robertson attributes many good qualities to the Sonthals, and also testifies to the cleanness and tidiness of their villages. The other aboriginal and semi-aboriginal races have not maintained the same exclusiveness as the Sonthals and have assimilated more Bengali customs and habits. The Bauries have seldom any land of their own and work as agricultural labourers. Many of the Sonthals have made a permanent move to the coal mines of Jherria and Asansol, others go to Burdwan and Hooghly temporarily, and return for the cultivating season. Education, even among the Hindus of higher castes, is extremely backward.

Very few Muhammadans were found in the area dealt with this year, and it is mostly Hindu immigrants who have established themselves in the position of tenure-holders between the landlords and the aboriginal cultivators, or by buying up occupancy rights have turned the real cultivators into under-raiyats. The new legislation has come rather late to save the position for many of the Sonthals, but the Settlement Officer expects to make considerable use of the procedure for commutation.

The area in Ranibandh and Raipur thanas, which were traversed in squares of a uniform size, had never been surveyed before, and the Settlement Officer had a free hand in dividing up the sheets into villages at *khanapuri*. The area settled with one *mandal* tenure-holder is the local village and this was the unit usually adopted. Few villages are confined to less than three or four sheets and some sheets contain as many as six or seven villages. In these circumstances to avoid confusion in numbering the plots and to minimise the opening of duplicate khatians in the name of one person, it is most important that in each village one amin should do the *khanapuri* and one Kanungo the *bujharat*. With this end in view considerable organisation is required in the distribution of sheets and this part of the work was very successfully tackled. New jurisdiction lists and maps were prepared during the recess in readiness for attestation.

In some parts of the jungle the plots were unexpectedly small, and the average for the block was 1,053 per square mile. The average of khatians is 170 per square mile. On the whole the work was easy, and there was a considerable saving as compared with the standard rate in all four branches of work as the following statement will show :—

	Programme for the year.	Perf ormance.	Cost rate.	Standard rate.
	Rs.	Rs.	Rs.	Rs.
Cadastral	968	971	89	115
Khanapuri ...	968	971	30	39
Preliminary record writing.	968	971	14	18
Bujharat	968	991	75	94

In 1880-87 a survey was made of all the lands granted to the Ghatwals who were a kind of militia to guard the frontiers from bands of robbers, and by 1900 two-thirds of these feudal tenures were resumed The principle adopted was to fix 75 per cent. of the cash rents paid for similar lands in the neighbourhood, of which half went to the landlords and half to Government. Both sides benefited as the Ghatwals obtained a permanent interest in their land at a fixed rent, while the landlords received a substantial sum in lieu of their shadowy rights to service. A proposal has been made to Government to resume the remainder and it is not anticipated that either the landlords or the Ghatwals will raise any serious objection.

35. *Inspection of Cadastral Survey and Khanapuri.*—The following statement compares the severity of inspection of cadastral survey and khanapuri in Bankura, Jessore and Tippera-Noakhali :—

District.	Number of linear miles of *partal* per square mile.		Percentage of plots tested in khanapuri.
	By whole staff.	By officer only.	
Bankura	2·8	·13	5
Jessore	4·7	·88	10
Tippera-Noakhali	4·8	·30	7

It is satisfactory to note that the quantity of *partal* obtained in Jessore and Tippera-Noakhali was much above the standard of two miles to a square mile.

Minor operations.

36. **Hooghly.**—The programme comprised the completion of operations in five private estates (area about 4 square miles) taken up in the previous year, and work up to draft-publication in the patni taluk which was sanctioned in April 1917 and the two other patni taluks which were taken up in the year under report. Sanction for these latter two estates was received late and consequently field bujharat and subsequent stages had to be left over for the current season. As usual in this district, the applicants in all these cases were patnidars who had recently purchased their taluks and were unable to obtain reliable or complete papers from their predecessors in interest. The records of the five old estates were finally published and only about 100 cases under sections 105 and 106 remain to be disposed of.

The main features of the settlement were the rent-free and mukarari claims. Out of 1,576 interests in the area attested, 214 were rent-free and 61 mukarari.

Babu Khitish Chandra Haldar, Sub-Deputy Collector, continued in charge of the work in addition to his duties in the general line.

37. **Howrah.**—The programme comprised work in two Government estates with an area of about 1 square mile, taken up in 1917, and 5 private estates with an area of about 5 square miles of which one was taken up in 1915, two in 1916, one in 1917 and one in 1918. The estate taken up in 1918 has the largest area, viz., 3¼ square miles, and it is now at the stage of field bujharat. All work in the estate taken up in 1915 has been finished, but a certain amount of case-work in the two estates of 1916 is still pending. This should be expedited now.

All work in one Government estate—an old brick-field of 12·05 acres which has now been brought under cultivation—was completed. It was in fact a case of first settlement, and the previous nominal rent-roll of Rs. 47 only was raised to Rs. 131 on the ground of prevailing rates in the neighbourhood, and extension of cultivation. In the other Government estate Bali Chak some work was at first done in advance of the programme, but certain serious defects were noticed in the records immediately after attestation and accordingly orders were issued for re-attestation of the entire area. This has been completed and the next stages now require to be pushed through, so that the new rents may be brought into effect from April next.

Babu Hangsa Prosad Roy, a Sub-Deputy Collector of the general line, who was at first in charge, was transferred from the district, and Babu Khitish Chandra Halder, Sub-Deputy Collector, who is in charge of settlement work in Hooghly, was placed in charge of the work in Howrah also in addition to his duties in the general line.

38. **24-Parganas.**—No new private estate was taken up during the year. The records of estate Aminpur where work was postponed in the previous year were finally published. There have been 350 applications under section 105 and 81 cases under section 106 in this estate and these are pending. A small amount of case-work also remains to be done in the other estates as Babu Sudhir Chandra Ghosh, the Assistant Settlement Officer of Jessore, who had to do it, could not spare sufficient time for the purpose. Babu Bisweswar

Bhattacharjee, Deputy Collector in the general line at Alipur, has since been entrusted with the work.

One new Government Estate, Sundarbans lot No. 16, was added to the programme of the year. Of the previous estates, work was completed in 3, viz., Kamarpole and the Sundarbans lots, Manasadwip, 2nd portion and Shikarpur, 2nd portion. The result was an increase of revenue from Rs. 23,509 to Rs. 38,961. The proceedings in the Government Estate Kamarpole have brought to light the fact that the raiyats' lands are fast passing into the hands of *mahajans* who are retaining their transferees as under-raiyats on largely enhanced rents. There is no custom under which the raiyat can transfer without the Collector's consent, and possibly the Collector may do something to prevent or at any rate discourage undesirable transfers.

The main question in the Sundarban lots is one for their development by gradual extension of cultivation under the direct management of the Collector. Only the reclaimed area has been surveyed and out of the total of 6 square miles of this area about 5⅓ square miles are cultivated and ⅔rds square miles uncultivated. But besides this, 100 square miles of jungle have remained unsurveyed :—

	Cultivated (acre).	Uncultivated (acre).	Jungle not surveyed.
Manasadwip, 2nd portion	2,462·15	262·53	128·32
Shikarpur, 2nd portion	340·98	62·02	2,870·00
Saugor Island, 3rd portion	642·57	71·24	3,494·19
Total ...	3,445·70	395·79	6,492·51

As regards the new estate, lot No. 16, cadastral and khanapuri were finished by June, but field-bujharat could not be taken up as the lands went under water. Arrangement has been made for field bujharat by an experienced Settlement Kanungo in the current season.

39. **Khulna.**—No new estate was taken up during this year. Babu Rash Bihari Mukharji was in charge as Assistant Settlement Officer for the greater part of the year.

The records of Government Estate Boyarsingha (area 6·3 square miles) were published in draft, but the proceedings could not be concluded as the question of recognizing the squatters and tenants and making a settlement under section 104 of the Tenancy Act or of evicting them and keeping the area as a spill area in the interests of the drainage of the district as a whole is still under the consideration of Government. Out of a total area of 4,052 acres, 1,964 acres are in the possession of 333 squatters and the process of encroachment on the remaining culturable area is still going on after attestation.

The work in the two private estates (13·95 square miles), which are two tenures of the Syedpur Trust Estate, including the disposal of a large number of objections, was concluded and good progress was made with recovery before the special officer was transferred from the district. The final report has not yet been received. The result of the rent-settlement proceedings under section 105 shows an increase of raiyats' rents by 62 per cent. and undertenure-holders' rents by 42 per cent. It is, however, explained that about three-fourths of the increase are due to "excess area" arising mainly from extension of cultivation in the beels.

40. **Murshidabad.**—Operations were initiated in 10 estates between 1912 and 1916, and the only work remaining for the year under report was the disposal of cases under sections 105 and 106 of the Bengal Tenancy Act which covered 14,355 tenancies. The rents of the raiyats have been raised by 31 per cent. generally by compromise. A few cases are still pending on account of certain suits in the Civil Court. The Special Settlement Office has been closed, the small balance for recovery being left under certificate. Final reports for all the estates have also been received.

Babu Abinash Chandra Banarji, who efficiently managed the minor operations in this district, has been rewarded by promotion to the rank of a Deputy Collector.

41. **Maintenance of Records in Fatehsingh (Murshidabad).**—This was the first year of the working of a scheme for the maintenance of a record-of-rights in the Fatehsingh estate of the Nawab Bahadur of Murshidabad, which was sanctioned by Government in the previous year with a view to the introduction of the Certificate Procedure for the realisation of arrears of rent. The experiment has been a success, and is full of possibilities, when other important landholders wake up to the advantages which maintenance confers on all concerned. The scope of the work was limited only to the tenants holding directly under the Nawab Bahadur and did not comprise maintenance of the records of their under-tenants or collection of up-to-date agricultural or other statistics.

It is satisfactory to note that the cost has been kept below the estimate The total area is 44 square miles with 24,815 interests as recorded in the revisional operations immediately preceding the maintenance scheme. The annual cost of maintenance has been Rs. 2,480 (including all indirect charges) or only 1 anna 4 pies per acre. Owing to the limited scope of the scheme in this estate, the number of interests with which the Maintenance Officer was directly concerned was 13,234. The following statement of changes which had occurred during the year intervening between the revisional operations and the maintenance work is an interesting study as it gives an index of the percentage of annual changes expected in such cases :—

		Per cent.
By inheritance	946	7
„ recognised transfer	130	1
„ unrecognised transfer	19	1·4
„ auction purchase by landlord	29	
„ resettlement after auction purchase by landlord ...	5	
„ new settlement	14	
	1,143	9·4

Attendance was satisfactory. But probably it was largely due to the curiosity arising from the novelty of the work.

Maulvi Abdul Latif Chowdhury, Sub-Deputy Collector, was in charge and managed the work with creditable tact and energy. He appears to enjoy the full confidence of the people.

42. **Mymensingh (Minor).**—The land revenue settlements of all the estates, except one, taken up in the previous year were completed and the records finally published. The result has been an increase of rent from Rs. 8,103 to Rs. 11,406, *i.e.*, by 40·8 per cent., of which two-thirds are due to extension of cultivation and the rest to increase of rate. The Government revenue has, however, increased only by 8 per cent. as 18 of the estates hitherto held under direct management have been now settled with the proprietors. The work was done by the District Settlement staff.

43. **Faridpur.**—Four Government and temporarily-settled estates with an area of about 14 square miles were taken up for resettlement. The lands of three of these estates were covered with water during the District Operations. It was, therefore, necessary to traverse the area and make completely new maps. In the fourth estate the proceedings began with a re-bujharat of the District Settlement maps. All the rent-rolls were draft-published before the close of the year under review. It is expected that the revenue will increase by about Rs. 6,000.

The Khas Mahal Sub-Deputy Collector, Babu Brajendra Nath Das Gupta, was in charge of the work in addition to his other duties.

44. **Dinajpur.**—The pending case-work of the area finally published in the previous year was completed.

Two new private estates (area 1,238 acres) were taken up during the year for survey and record-of-rights on the application of the landlord. Owing to late receipt of orders, survey could not be commenced till the end of December 1917 and outturn has not been up to the programme. The record had, however, been made ready for draft publication when the year under review closed.

There was no whole-time officer, but a Deputy Collector of the general line continued to be in charge of settlement work in addition to his other duties.

45. **Malda (Mathurapur Estate).**—All objections were disposed of and the records finally published in the Enaitpur Mahal, bearing tauzi No. 60 of the Malda Collectorate. A scheme of maintenance under Government agency was approved by Government in April 1918 in order that the certificate procedure might be introduced under section 158A of the Bengal Tenancy Act in the ten annas share of the estate, which has not yet formally come under the Court of Wards. The rules framed are more ambitious than those in Fatehsingh and contemplate maintenance of the records of under-tenants as well. The work will begin in the current field season under the supervision of the Settlement Officer of Rajshahi.

PART II.

46. **Guide and glossary to Survey and Settlement records Bengal.**—A guide and glossary to the survey and settlement records in Bengal containing a short description of the settlement procedure, English and Vernacular terms used in settlement and the application of the Bengal Tenancy Act to the survey and settlement operations has been published during the year and made available to the public at a small price. With a view to securing for the work as wide publicity as possible, the copyright was not reserved. It can be reprinted or translated by any one with the approval of the Director of Land Records, Bengal.

47. **Final reports.**—Two final reports of major operations were received during the year, namely, the final report on the survey and settlement operations in the district of Midnapore by Mr. A. K. Jameson, I.C.S., and the final report on the survey and settlement operations in the district of Jalpaiguri by Mr. J. A. Milligan, I.C.S. The former which gives a most able account of this important district and the many interesting problems encountered in this part of Bengal, has been submitted to Government. The latter is still in the press.

Several final reports on minor operations were received during the year of which the most important were :—

(1) Report on the settlement of the Mokimpur estate in Jessore and Khulna by Babu Akshoy Kumar Mukharji, Sub-Deputy Collector.

(2) Report on the settlement of estate Dandra in Noakhali, by Khan Sahib Kabiruddin Ahmed.

(3) Report on the settlement of Tambuldaha estate in the Sundarbans, 24-Parganas, by Babu Sudhir Chandra Ghosh.

(4) Report on the settlement of estate Kamarpole in the 24-Parganas, by Babu Sudhir Chandra Ghosh.

(5) Report on the settlement of estates Dihi Lalpur and Dantia Anantapur in Murshidabad, by Babu Abinash Chandra Banarji, Sub-Deputy Collector (now Deputy Collector).

48. **Training classes for candidates for Kanungoship.**—Forty-four candidates were selected for undergoing the prescribed course of training held at Bankura in August and September, 1918. Forty-one passed the final examination and they have all been provided with appointments in the Department.

49. **Training of Junior Officers.**—The training camp for junior officers was opened in the grounds of the survey school at Mainamati upon the Lalmai Hills about 5 miles from Comilla in the district of Tippera. Two officers of the Indian Civil Service, seven Deputy Collectors and eleven Sub-Deputy Collectors underwent the usual training at the several stages of survey and settlement work which was conducted by Mr. W. H. Thompson, I.C.S., Settlement Officer of Tippera-Noakhali. There was also a ward of the Court of Wards. The programme of work was somewhat broken on account of the

deputation of some of the Sub-Deputy Collectors under training to Noakhali for a fortnight for investigating the *hat*-looting cases which had occurred in that district but this break was subsequently made up during the course of their training. One Indian Civil Service officer went away on leave on medical certificate and one Sub-Deputy Collector joined the Bengal Light Horse camp before the course was completed. The officers deputed for training at this camp showed a greater aptitude for the work and made a better use of their opportunities than the officers deputed last year. As there is no more cadastral survey to be done in Tippera, this was Mr. Thompson's last season for holding the training camp and arrangements have been made for the next camp at Asansol under Mr. F. W. Robertson, the Settlement Officer of Bankura.

No police officers were trained during the year, as the question of discontinuing their training in survey and settlement was under the consideration of the Inspector-General of Police. It has since been decided by Government to discontinue the training of probationary Sub-Inspectors of Police but to continue it for Assistant and Deputy Superintendents and to reduce the period to two months by omitting the purely technical portion.

Mr. Thompson is to be congratulated on his efficient administration of the training camp during the last three years and the thanks of Government have been conveyed to him.

50. **Training of Munsifs.**—Three munsifs reverted to the Judicial Department during the year on the completion of their training in survey and settlement. Like their predecessors, they profited generally by the training and gained useful experience which will prove beneficial in the exercise of their judicial functions in the future. Six munsifs were deputed by the High Court for training in the beginning of the season, of whom two were posted to the Tippera-Noakhali, two to the Jessore, and two to the Bankura Settlement.

51. **Jurisdiction.**—The boundary between the Garo Hills in Assam and the district of Mymensingh was fixed during the year by the Government of India in their Notification No. 1296, dated the 30th August 1918. Considerable minor changes in the jurisdiction of police stations in different districts were introduced involving examination by this office of 40 proposals affecting changes in the jurisdiction of police stations. Jurisdiction Lists of 42 thanas were published during the year and made available to the public at the usual price. A proposal was made for fixing separate prices for the jurisdiction lists and maps. This has been approved by Government, and the public can now purchase from the Collectorate—

(1) Thana Jurisdiction Lists at 12 annas each.

(2) Thana Maps at 4 annas each.

52. **Maintenance of Boundary Marks.**—Appendix X shows that out of a total of 32,759 pillars placed in the charge of District Officers, 17,352 or 53 per cent. were inspected with the result that 1,377 or 4 per cent. of the number were found missing and 427 or 1·3 per cent. damaged. In most cases, the District Officers have taken prompt measures to restore the boundary marks and to repair the damaged ones, but in some cases necessary action still remains to be taken. Two hundred and seventy-three missing marks were replaced in the Wards' Estates at a cost of Rs. 253 and 76 marks in Zamindari Estates at a cost of Rs. 684 during the year under report.

Preliminary arrangements were completed during the year for making over to the panchayets and dafadars the boundary and survey marks erected in the course of district operations in Faridpur, Dacca, and Midnapore, according to the rules in the Survey and Settlement Manual, 1917. It is hoped that the work will be complete in the current settlement year. The money required is available from the amount transferred to Provincial funds for the purpose out of the advance recovery made for maintenance of boundary marks under section 114 of the Bengal Tenancy Act. There has been a delay in taking action in this respect in the districts mentioned above, but it was due to the fact that the rules were more or less unsettled. It is now clear that the Settlement Officers would do well to arrange for making

over to the Collector the boundary mark maps and lists as early as possible and thana by thana as each is completed.

53. **Utilization of Settlement Records and Maps.**—The reports of the local officers show that the Survey and Settlement records continued to be utilized in collectorate and revenue work as well as in criminal and civil cases involving land disputes, and some of the reports are most encouraging. In almost all districts the settlement records, whenever available, were freely used in criminal cases both by the police and private parties. In all districts, where settlement maps were available, they were used to prepare sketch maps of the scenes of important crimes. In collectorate work the settlement records were particularly useful in partition and land acquisition proceedings. The khas mahals and wards' estates made full use of the settlement records. In the Registration Department, Sub-Registrars, it is reported, invariably insisted on plot numbers being entered in documents presented for registration. As usual, printed lists of areas in which final publication has taken place were distributed through the Inspector-General of Registration. It is reported that in Dacca the settlement records and maps were profitably utilized by the District Board and Municipalities and even by the Panchayets.

Appendix XI shows that 9,004 copies of village maps and 1,044 copies of thana maps were sold to the public during the financial year ending 31st March 1918. Five thousand two hundred and fifty-five copies of thana maps and 1,494 copies of village maps were issued by the Collectors on public service.

Appendix XII is a return of copies of settlement records issued on public service and by sale during the financial year ending 31st March 1918 in districts, where the record-of-rights has been printed. It was the first year for which such a return was called for, and complete information has not been received from all districts. It is interesting that in Dacca about a lakh of khatians were sold during the year. In Rajshahi, where the records have not yet been made over to the Collector, over 3 lakhs of khatians were sold. These additional issues, in spite of the free distribution during final publication, are a clear indication of the popularity of the settlement record.

54. **Diara Proceedings.**—Twenty-six proceedings for resumption of diara accretions were received during the year and submitted to the Board. Eighteen proceedings, including six of the previous year, were finally disposed of, resulting in the creation of 225 new temporarily-settled estates with an area of 10,797 acres and revenue Rs. 20,127. Fourteen cases remained pending at the end of the year.

In the cases disposed of there were 240 objections before the Diara officer and 6 objections before the Board. Out of the 225 new estates formed, the proprietors in 183 estates accepted settlement and in the case of the rest the estates were either kept *khas* or let out in farm.

The most important of the Diara proceedings which came up for examination during the year were those relating to the river Jamuna in the Mymensingh district. The Board of Revenue has directed a special enquiry by Rai Sahib Hara Kishor Biswas during the current field season.

Information of the institution of 13 civil suits against the Diara proceedings disposed of in previous years, mostly in Bakarganj, was received during the year. Of these suits, 9 have been disposed of by the lower courts in favour of Government and 4 against. The remainder are pending. In one case the Subordinate Judge expressed a doubt whether the comparative maps prepared in Bakarganj were regular and whether any legal "new" map under the meaning of section 3 of Act IX of 1847 was prepared. The enquiry made by the Commissioner, approved by the Civil Court, however, gave the same result as the Diara officers' comparative maps. The case was, however, decided against Government, and an appeal has been preferred. In subsequent cases the Court has come to a different finding. The question about the possibility of relaying Lieut. Hudges' survey in the Bakarganj Sundarbans is also under examination in another set of civil suits at Barisal.

55. **Judicial work of the Director.**—Altogether 155 cases of confirmation of rent-roll in Government and temporarily-settled estates under section 104F of the Bengal Tenancy Act were received and disposed of during the year.

There were altogether 1,837 appeals under section 104F of the Bengal Tenancy Act including the 69 cases pending from the previous year. All were disposed of excepting 1,558, most of which relate to pargana Silda in Midnapore. These are of importance, as they are delaying the final publication of an appreciable portion of the Midnapore record. It is hoped to dispose of them during January next.

56. **Deputation to Military duty.**—Messrs. Nelson, Pringle, Robertson and Thompson, Settlement Officers of Raishahi, Nadia, Bankura and Tippera-Noakhali, respectively were directed by Government at the instance of the military authorities to undergo a course of two months' military training. The former three officers completed their training within the settlement year, but Mr. Thompson's deputation was postponed to the beginning of November last. He is attached to the Supply and Transport Corps in Calcutta.

57. **Tours.**—All the major operations were visted at least twice, only Dacca being visited once. Three were visited thrice during the year. Out of the eleven districts, where minor operations were being conducted, two were visited thrice and five were visited once during the year under report. Altogether 97 days were spent on tour.

58. **Promotions and Prospects.**—During the year under report one Sub-Deputy Collector was promoted from the Settlement Department to the Provincial Executive Service and one Kanungo was appointed a Sub-Deputy Collector. Maulvi Saiyid Muazzumuddin Hussain received the title of Khan Sahib for faithful work in Mymensingh.

The question of the period for which Deputy and Sub-Deputy Collectors should remain employed in the Settlement Department was discussed during the year, and it was decided not to frame any hard-and-fast rules, but to give due consideration to the problem at the time of the annual recruitment of gazetted officers for the Settlement Department. The tendency in the past has been to employ the same Deputy and Sub-Deputy Collectors year after year in the Settlement Department until they lose all touch with ordinary district work. When eventually the time comes to revert, they are too old to take to entirely new branches of work with reasonable aptitude, and this discredits the department in the general line and is not to the interest of the officers themselves. On the other hand, many of the officers now employed are experts in particular branches like case-work, and nothing is worse for the progress of a settlement than continual changes of officers.

59. **Settlement Staff.**—The maximum settlement staff employed at any one time in the year consisted of 5 Civilians, 17 Deputy Collectors, 11 Munsifs, 39 Sub-Deputy Collectors, 234 Kanungos including Revenue Officers, together with one officer of the Survey of India Department. Owing to most of the junior officers joining the Indian Army Reserve of Officers, no Civilian Charge Officer was again available for any of the major settlements.

The whole department felt the death of Major J. C. Jack, D.S.O., M.C., on the western front, as a personal bereavement. After being Assistant Settlement Officer of Bakarganj and Settlement Officer of that district and in Faridpur from 1902 onwards, he succeeded the Hon'ble Mr. Beatson Bell as Director in 1912 and remained in charge until he went home to join the Royal Artillery in 1914. Nobody acquainted with his influence in Eastern Bengal can have been surprised at his brilliant success in the Army, and the mark he has left on the morale and traditions of the department he did so much to strengthen and consolidate is indelible. The year was an unfortunate one in other respects. The sudden death of Mr. S. Klingenstein, I.C.S., the newly-appointed Settlement Officer of Jessore, in 1917 came as the greatest shock to all his friends. Maulvi Muhammad Mahiuddin, Sub-Deputy Collector and Assistant Settlement Officer, died in August last while employed as a case-work officer at Chandrakona in the Midnapore district. Babu Kali Pada Maitra, who has done yeoman service in Dacca, has never recovered from the effects of his attack of cholera in February 1917, and he was obliged to take long leave in July last. Bankura lost two valuable Kanungos in Babu Surendra Narayan Sarkar and Babu Phani Bhusan Mitra. Shaik Osman Ali died while in harness at Rajshahi and Babu Monoranjan Sen Gupta in Jessore. Babu Bijay Chandra Basu, one of the most senior Kanungos and Revenue Officers of the Mymensingh Settlement, contracted a serious

illness, which terminared fatally, early in December, to the great regret of all his colleagues.

Of the Settlement Officers of the major settlements, Mr. Jameson severed his long connection with the Midnapore district in April, and his final report on the operations, which he did so much to make a conspicuous success, will challenge comparison with any of its predecessors for thoroughness and arrangement. Mr. Nelson in Rajshahi dealt with the diara areas and the Fatehsing and Malda additions to his original programme with characteristic smoothness and success. To Mr. Thompson belongs the whole credit of finishing the two districts of Tippera and Noakhali in record time without any loss of efficiency and attention to detail. The thanks of the department are also due to Mr. Pringle for the unsparing way he devoted himself to restoring order in the Jessore Settlement, when everything was going wrong owing to the continual sickness in the staff and the sudden death of the Settlement Officer at the most critical period of a programme, which was full of unexpected difficulties. Khan Sahib Saiyid Muazzamuddin Hussain in Mymensingh and Babu Bijay Bihari Mukharji in Midnapore showed exemplary patience in the dull and trying task of winding up their settlements, and Babu Ramesh Chandra Sen by his good work as Charge Officer in Rajshahi fully justified his quick promotion. With few or no exceptions all the officers of the department spared no effort to do their work economically and well. It is an invidious task selecting particular names among so many deserving names. I have pleasure, however, in noting the good report received about the work of—

Khan Sahib Kabiruddin Ahmed Babu Karali Charan Gangali Babu Surendra Nath Banarji, II Babu Satamanyu Mukharji Babu Sudhir Chandra Ghosh	Deputy Collectors.
Mr. I. Newton	... Technical Adviser.
Babu Kashiswar Chakrabatti Babu Abinash Chandra Banarji	Recently promoted to Deputy Collectorship.
Babu Jogesh Chandra Mitra Babu Girish Chandra Das Babu Chinta Haran Das Gupta Babu Hira Lal Sen Babu Anath Bandhu Chararji	Sub-Deputy Collectors.

Babu Mahendra Nath Gupta, Deputy Collector, continued to do loyal service as Personal Assistant.

60. **Conclusion.**—In conclusion, I desire to convey the thanks of the department to the Director of Surveys for the assistance he has given throughout the year. The unexpected amount of relaying work that was necessary in Jessore and Bankura was a severe burden on his department. I also take the opportunity of thanking the Commissioners and the District Officers in whose charge settlements have been proceeding for the ready attention they have always given to the often troublesome work which has come before them.

I have the honour to be,

SIR,

Your most obedient servant,

F. A. SACHSE,

Director of Land Records, Bengal.

B. S. Press—21-3-1919—4402J—325—S. D.

APPENDICES.

[*N.B.*—Figures in these Appendices which do not agree with those in the last year's Report are revised figures.]

APPENDIX I.

Progress of Survey and the preparation of a record-of-rights in the Province.

NAME OF DISTRICT.	Area (excluding large rivers).	Reserved forests.		Unsettled waste at the disposal of Government.		Settled area to which the Bengal Tenancy Act has not been extended.		Settled area to which the Bengal Tenancy Act has been extended.			
		Area.	Scale and date of survey.	Area.	Scale and date of survey.	Area.	Date of Cadastral Survey under other Acts.	Total.	Area in which a record-of-rights—		
									Has been finally published.	Is in course of preparation.	Remains to be prepared.
1	2	3	4	5	6	7	8	9	10	11	12
Burdwan	2,678	...	...	...	...	...	...	2,678	99	...	2,579
Birbhum	1,740	...	...	...	...	...	...	1,740	209	...	1,531
Bankura	3,241(a)	...	...	...	...	...	...	3,241	51	971	2,219
Midnapore	5,056	...	...	...	...	...	...	5,056	4,766	290	...
Hooghly	1,213	...	...	...	...	...	...	1,213	55	5	1,153
Howrah	510	...	...	...	...	...	...	510	2 2(c)	5	503
24-Parganas ...	4,844	1,758	...	1,191	...	...	...	1,895	109 66(c)	4	1,782
Calcutta	8	...	...	...	...	8	1911 in respect of 4 square miles.	...	...	...	...
Nadia	2,725	...	...	...	...	...	...	2,725	26 27(c)	28(f)	2,671
Murshidabad ...	2,143	...	...	...	...	...	...	2,143	169(d)	...	1,974
Jessore	2,915	...	...	...	...	...	...	2,915	82	828	2,005
Khulna	4,765	2,089	...	...	...	...	...	2,676	260	6	2,410
Dacca	2,832	...	...	...	...	...	...	2,832	2,832	...	...
Mymensingh ...	6,432	...	...	...	...	...	...	6,432	6,327	105(h)	...
Faridpur	2,471	...	...	...	...	...	...	2,471	2,461	14(c)	10(g)
Bakarganj	3,490	131	16″=1 mile. District operations, 1905-06.	516	16″=1 mile. District operations, 1905-06.	...	...	2,843	2,843 14(c)	...	...
Chittagong	2,492	564	4″=1 mile. District operations, 1885-89.	486	16″=1 mile. District operations, 1888-89.	...	...	1,442	1,374	...	68
Noakhali	1,649	...	...	...	...	...	...	1,649	3,182	1,966	...
Tippera	3,499	...	...	...	...	...	...	3,499			
Rajshahi	3,640(b)	...	...	...	...	...	...	3,640	2,442	1,198	...
Dinajpur	4,132	...	...	...	...	...	...	4,132	517	2	3,613
Jalpaiguri	2,924	505	4″=1 mile. 1907-08.	...	...	382	4″=1 mile. 1907-1910.	2,037	2,037	...	...
Rangpur	4,090	...	...	...	...	...	...	4,090	143	...	3,947
Bogra	1,359	...	...	...	...	...	...	1,359	53	..	1,306
Pabna	1,839	...	...	...	...	...	...	1,839	68(e)	...	1,771
Malda	1,832	...	...	...	...	...	...	1,832	96		1,736
Darjeeling	1,164	436	4″=1 mile. 1905.	22	...	706	Kalimpong 1902-1903, Siliguri 1897-98, West Tista 1906-1907, Act V of 1875.	...	...	...	...
Total ...	75,683	5,483	...	2,215	...	1,096	...	66,889	30,203 109(c)	5,408 14(c)	31,278

(a) Including 620 square miles of the Asansol subdivision of the district of Burdwan.
(b) Including diara strips of Pabna, Nadia and Murshidabad.
(c) Revisional.
(d) 44 square miles in Pargana Fatehsingh is under final publication.
(e) River strips done from Faridpur.
(f) Being done by the Settlement Officer, Rajshahi.
(g) Area transferred from Jessore.
(h) Including diara strips in Rangpur, Patna, Bogra and Tippera.

APPENDIX II.

Progress and cost in district operations during the year ending 30th September 1918.

District Dacca—Commenced 1st October 1909.] **[Estimated area 3,157 sq. miles—4 Blocks.**

Branch of work.	Unit of report.	Progress. For the year under report. Programme according to sanctioned programme for whole operation.	Progress. For the year under report. Performance.	Progress. Up to date. Programme according to sanctioned programme for whole operation.	Progress. Up to date. Performance.	Cost (including book-debit and indirect charges). For the year under report. Estimated expenditure according to sanctioned estimate for whole operation.	Actual expenditure.	Actual cost rate.	Up to date. Estimated expenditure according to sanctioned estimate for whole operation.	Actual expenditure.	Actual cost rate.	Cost rate to which sanctioned estimate for whole operation works out.	Standard cost rate for a 4-block district.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Traverse Survey done by Settlement Officer ...	.....	...	...	...	...	...	...	...	...	4,002	...	...	...
Cadastral Survey	Square miles	...	...	...	3,157*	...	...	...	2,99,000	2,86,355	91	92	115
Khanapuri	Ditto	...	...	...	3,157	...	...	...	1,59,250	1,52,197	48	49	39
	Plots	...	...	...	3,389,316	...	...	...	...	...	...	...	...
Initial recess	Square miles	...	...	...	3,130	...	...	...	45,900	42,092	13	14	18
Bujharat	Ditto	...	...	...	3,130	...	...	...	...	...	...	...	...
	Plots	...	...	...	3,419.917	...	...	...	2,76,250	2,60,195	83	85	94
	Interests	...	...	...	1,461,046	...	...	...	...	...	...	...	...
Attestation	Square miles	...	...	...	3,130	...	...	...	2,76,250	2,58.974	83	85	66
Draft publication	Interests	...	...	...	1,423,104	...	...	...	...	...	...	...	...
Objections	Square miles ...	...	...	...	...	...	...	...	...	...	...	...	...
	Ditto	...	...	...	3,130	...	...	...	52,000	40,076	13	16	27
	Cases	...	...	...	43,417	...	...	...	...	...	...	...	...
Final Office work—													
Janch	Square miles	...	...	...	3,130	...	...	...	39,000	29,115	9	12	20
Statistics	Ditto	...	...	...	3,130	...	...	...	58,500	73,479	23	18	10
16" and Topographical Maps	Ditto	...	...	...	3,130	...	683	...	19,500	18,116	5	6	8
Final records	Ditto	...	...	...	3,130	...	3,524	...	2,91,658	1,99,730	63	90	54
	Interests	...	...	...	1,415,211	...	...	...	...	...	...	...	...
Computation and recovery	Square miles	...	...	...	3,130	...	2,667	...	74,750	67,667	21	23	29
Final publication	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Case-work—													
Section 105	Square miles	670	670	...	3,130	...	23,215	35	52,000	62,141	20	16	16
	Tenancies	16,778	16,778	...	75,319	...	...	...	...	...	...	...	...
,, 106	Square miles	670	670	...	3,130	...	...	...	...	...	...	...	...
	Cases	671	671	...	2,015	...	...	...	...	...	...	...	...
,, 108A	Square miles	670	670	...	3,130	...	...	...	...	...	...	...	...
	Cases	1,330	1,330	...	2,461	...	...	...	...	...	...	...	...
,, 40	Square miles	670	670	...	3,130	...	...	...	...	...	...	...	...
	Cases	62	62	...	275	...	...	...	...	...	...	...	...
Jamabandi	Square miles	...	...	...	...	...	...	...	25,000	29,349	...	8	50
Diara	Ditto	...	...	...	...	...	...	...	...	25,397	...	...	
Operations under section 112	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Municipalities	Ditto	...	...	...	...	...	...	...	...	19,839	...	...	...
Supervision	.....	...	...	...	...	...	6,964	...	4,38,750	4,31,732	...	135	179
Supplies, services and contingencies—													
(1) Ordinary	.....	...	...	...	...	...	5,917	...	3,99,750	2,36,364	...	...	...
(2) Press	.....	...	...	...	...	...				1,29,812	...	...	...
Director of Land Records' control	.....	...	...	...	...	...	1,212	...	...	35,05	...	...	...
Total	.....	...	...	...	...	...	44,182	...	...	23,99,682	...	...	...
Special work	...	...	...	...	...	...	...	...	...	74,263	...	...	...
GRAND TOTAL	.....	...	...	...	...	...	44,182	...	...	24,73,945	...	...	...

NOTE.—Rs. 8,558 was transferred to the Mymensingh Settlement for the survey of Mymensingh Tipperah Diara.
* Including river strips done from Dacca.

Progress and cost in district operations during the year ending 30th September 1918.

District Mymensingh—Commenced 1907.] **[Estimated Area 6,693 sq. miles—7 Blocks.**

Branch of work.	Unit of report.	Progress. For the year under report. Programme according to sanctioned programme for whole operation.	Progress. For the year under report. Performance.	Progress. Up to date. Programme according to sanctioned programme for whole operation.	Progress. Up to date. Performance.	Cost (including book-debit and indirect charges). For the year under report. Estimated expenditure according to sanctioned estimate for whole operation.	For the year under report. Actual expenditure.	For the year under report. Actual cost rate.	Up to date. Estimated expenditure according to sanctioned estimate for whole operation.	Up to date. Actual expenditure.	Up to date. Actual cost rate.	Cost rate to which sanctioned estimate for whole operation works out.	Standard cost rate for a 4-block district.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral Survey	Square miles	...	...	6,693	6,432	...	...	...	6,27,966	6,25,871	97	94	115
Khanapuri	Ditto	...	...	6,693	6,432	...	...	...	2,28,376	2,29,120	36	34	39
Initial recess	Plots	...	...	...	5,658,726	...	...	...					
Bujharat	Square miles	...	...	6,693	6,432	...	...	...	1,01,204	1,00,833	16	15	18
	Ditto	...	...	6,693	6,432	...	...	...					
	Plots	...	...	...	5,699,535	...	...	...	5,05 803	4,82,102	75	75	94
	Interests	...	...	...	1,703,921	...	...	...					
Attestation	Square miles	...	...	6,693	6,423	...	...	...	3,89,266	3,94,759	61	58	66
	Interests	...	...	...	1,709,472	...	...	...					
Draft publication	Square miles	...	...	6,693	6,423	...	...	...	...	...	...	...	...
Objections	Ditto	...	...	...	6,423	...	...	...	1,44,801	91,794	14	22	27
	Cases	...	...	...	68,017	...	...	...					
Final office work—													
Jamch	Square miles	...	...	6,693	6,423		2,322	...		81,166	13	13	20
Statistics	Ditto	110	...	6,693	6,423		1,612	...		37,166	6	6	10
16″ maps	Ditto	460	290	6,693	6,423	26,739	4,532	16	4,19,207	47,068	7	8	6
Topographical maps	Ditto	410	2,175	6,693	6,423		5,448	2		10,883	2	1	2
Final records	Ditto	510	276	6,693	6,359								
	Interests	...	107,097	...	1,646,616		21,556	78		2,68,003	42	33	54
Computation and recovery	Square miles	738	534	6,693	6,301	13,496	20,826	39	1,05,091	90,726	14	26	29
Final publication	Ditto	...	341	6,693	6,327								
Case work—													
Section 105	Tenancies	...	56,598	...	170,966								
,, 106	Cases	...	1,321	...	6,097	56,426	38,006	19	1,74,612	1,23,505	20	26	16
,, 108A	Cases	...	...	...	...								
,, 40	Cases	...	388	...	3,172								
Jamabandi	Square miles	...	...	...	...		285	...		13,139	...	...	...
Diara	Ditto	...	...	...	...	6,795	11,424	...	18,383	29,489	...	...	...
Operations under section 112	Ditto	...	...	...	...								
Municipalities	Ditto	...	...	...	...								
Supervision	...	...	...	...	...	56,521	35,492	...	8,86,640	825,375	...	137	179
Supplies, services and contingencies—													
(1) Ordinary	.....	...	...	...	...	15,660	16,148	...	4,93,516	3,72,597	...	74	97
(2) Press	.....	...	...	...	...		9,560	...		1,22,797			
Director of Land Records' control	.....	...	...	...	...	3,241	3,165	...	64,732	63,177	...	10	15
Total	.....	...	...	...	...	1,78,878	1,71,276	...	41,54,597	40,09,570	...	...	...
Special work	.....	...	..	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL	.....	...	...	...	...	1,78,878	1,71,276	...	41,54,597	40,09,570	...	...	...

APPENDIX II—*continued.*

Progress and cost in District operations during the year ending 30th September 1918.

District Midnapore—Commenced 1911-1912.] **[Estimated area 4,140 sq. miles—5 Blocks.**

Branch of work.	Unit of report.	Progress. For the year under report. Programme according to sanctioned programme for whole operation.	Progress. For the year under report. Performance.	Progress. Up to date. Programme according to sanctioned programme for whole operation.	Progress. Up to date. Performance.	Cost (including book-debit and indirect charges). For the year under report. Estimated expenditure according to sanctioned estimate for whole operation.	For the year under report. Actual expenditure.	For the year under report. Actual cost rate.	Up to date. Estimated expenditure according to sanctioned estimate or whole operation.	Up to date. Actual expenditure.	Up to date. Actual cost rate.	Cost rate to which sanctioned estimate for whole operation works out.	Standard cost rate for a 5-block district.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral Survey	Square miles	...	...	4,140	4,140	...	...	...	5,34,491	5,34,227	129	129	...
Khanapuri	Ditto	...	...	4,140	4,140	...	...	...					
Initial recess	Plots	...	...	5,084,087	5,084,087	...	...	...	...	...	...	...	...
Bujharat	Square miles	...	...	4,140	4,140	2,612	2,503	...	1,98,742	2,06,326	50	48	..
	Ditto	...	...	4,140	4,140								
	Plots	...	...	6,026,273	6,026,273								
	Interests	...	...	1,860,000	1,860,000	1,476	...	...	3,90,004	3,94,179	95	94	...
Attestation	Square miles	...	...	4,140	4,140								
	Interests	...	...	1,860,000	1,860,000								
Draft publication	Square miles	...	...	4,140	4,140								
Objections	Ditto	...	...	4,140	4,140	2,448	...	...	50,308	50,855	12	12	...
	Cases	...	...	94,808	94,808								
Final office work—													
Janch	Square miles	...	24	4,140	4,140	10,710	960	40	1,62,617	1,61,762	39	39	...
Statistics	Ditto	...	423	4,140	3,910	14,073	2,316	12	51,330	32,029	8·2	12	...
16″ maps	Ditto	...	573	4,140	4,125	5,202	4,412	8	21,259	15,097	4	5	...
Topographical maps	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Final records	Ditto	...	479	403	4,140	3,850	62,042	43,467	107·85	2,63,469	2,30,458	60	61	...
	Interests	...	383,035	210,208	1,860,000	1,687,173							
Computation and recovery	Square miles	...	1,620	1,375	4,140	3,850	38,454	40,867	30	95,088	87,890	23	23	...
Final publication	Ditto	...	1,620	1,153	4,140	3,850							
Case work—													
Section 105	Ditto	...	...	2,147	3,864	2,441							
	Tenancies	...	...	113,109	200,000	128,837							
,, 106	Square miles	...	...	2,147	3,864	2,441							
	Cases	...	...	3,073	6,000	3,280							
,, 108A	Square miles	...	...	494	4,140	850	89,990	73,698	31	1,19,767	87,949	33	27	...
	Cases	...	...	358	3,000	616							
,, 40	Square miles	...	...	2,147	3,864	2,441							
	Cases	...	...	3,841	10,000	4,361							
Jamabandi	Square miles	...	...	...	...	2,991	3,739	...	10,044	9,455	...	...	...
Diara	Ditto	...	1	1	1	2,206	1,768	...	8,058	7,310	...	...	...
Operation under section 112	Ditto	...	...	...	...	3,337	9,853	...	26,604	37,542	...	...	...
Municipalities	Ditto	...	...	...	...	...	...	...	4,03 187	3,69,510	...	...	...
Supervision	.....	...	...	...	...	40,326	47,978	...	4,13,262	3,79,777	...	...	...
Supplies, services and contingencies—													
(1) Ordinary	.....	...	...	...	...	34,694	19,256	...	1,36,826	1,39,143	...	...	...
(2) Press	.....	...	...	...	...	37,384	33,966	...	38,022	37,424	...	...	...
Director of Land Records' control	.....	...	...	...	...	4,949	3,892	...	...	...	...	...	...
Winding up	.....	...	...	...	...	...	...	...	24,000	...	...	...	...
Total	.....	...	...	...	...	3,52,894	2,88,675	...	29,47,078	27,95,864	...	...	...
Special work	.....	...	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL	.....	...	...	...	...	3,52,894	2,88,675	...	29,47,078	27,95,864	...	...	...

APPENDIX II—*continued.*

Progress and cost in District operations during the year ending 30th September 1918.

District Rajshahi—Commenced 1912.] **Estimated area 3,820 sq. miles (including Pabna, Nadia and Murshidabad river strips)—5 Blocks.**

Branch of work.	Unit of report.	Progress. For the year under report. Programme according to sanctioned programme for whole operation.	Progress. For the year under report. Performance.	Progress. Up to date. Programme according to sanctioned programme for whole operation.	Progress. Up to date. Performance.	Cost (including book-debit and indirect charges). For the year under report. Estimated expenditure according to sanctioned estimate for whole operation.	Actual expenditure.	Actual cost rate.	Cost. Up to date. Estimated expenditure according to sanctioned estimate for whole operation.	Actual expenditure.	Actual cost rate.	Cost rate to which sanctioned estimate for whole operation works out.	Standard cost rate for a 5 block district.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral Survey	Square miles	...	...	3,820	3,640	...	...	...	4,21,600	3,64,167	100	110	115
Khanapuri	Ditto	...	...	3,820	3,640	...	...	...	1,41,980	1,80,817	50	37	47
Initial recess	Plots	...	...	...	5,070,902	...	...	...	...	...	...	...	...
Bujharat	Square miles	...	...	3,820	3,640	...	...	...	67,160	49,726	14	18	18
	Ditto	...	...	3,820	3,640	...	...	...	3,33,580	3,90,450	108	87	95
	Plots	...	...	...	5,217,242								
	Interests	...	...	...	1,554,740								
Attestation	Square miles	420	486	3,820	3,340	24,780	32,200	66	2,35,100	3,08,271	85	61	91
Draft publication	Interests	...	162,639	...	1,622,334								
	Square miles	...	486	...	3,640	...	...	...	...	...	...	...	...
Objections	Ditto	570	590	3,820	3,628	12,540	12,205	21	90,260	59,417	16	24	27
	Cases	...	12,939	59,750	59,446								
Final office work—													
Janch	Square miles	500	911	3,700	3,545	9,500	15,690	17	74,950	69,394	20	20	20
Statistics	Ditto	700	787	3,660	3,178	7,000	4,115	5	36,600	23,348	7	10	10
16″ maps	Ditto	840	895	3,470	3,010		5,245	6		17,466	6		6
Topographical maps	Ditto	840	1,090	3,470	3,010	46,200	2,122	2	1,97,814	10,058	3	57	2
Final records	Ditto	840	4,167	3,470	2,996		88,704	75		2,00,189	67		95
	Interests	...	601,225	...	1,361,167	...	...	...	...				
Computation and recovery	Square miles	904	720	2,800	2,070	21,696	22,002	31	74,778	44,234	21	28	29
Final publication	Ditto	...	1,002	...	2,442	...	...	...	...	...	...	...	...
Case work—													
Section 105	Ditto	...	790	...	797								
	Tenancies	...	24,230	57,843	24,385								
,, 106	Square miles	...	790										
	Cases	...	943	3,175	797								
,, 108A	Square miles	...	...		947	12,480	19,243	24	39,927	19,872	25	17	16
	Cases	...	790	...	797								
		...	304	478	464								
,, 40	Square miles	...	...	...	2,442	...	...	...	...	...	...	...	...
	Cases	...	...	...	236	7,560	506	...	7,560	643	...	...	...
Jamabandi	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
Diara	Ditto	...	...	...	...	...	1,658	...	...	1,658	...	...	...
Operations under section 112	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Municipalities	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Supervision		...	...	...	...	41,248	64,426	...	4,75,811	4,46,403	...	...	...
Supplies, services and contingencies—													
(1) Ordinary		...	...	...	...	30,380	28,123	...	4,13,414	3,73,235	...	...	...
(2) Press		...	...	...	...	...	36,364	...	...	96,004	...	...	...
Director of Land Records' control		...	...	...	...	4,000	5,505	...	40,064	33,157	...	...	...
Total		...	...	...	...	2,17,384	3,38,108	...	26,50,598	26,88,509	...	...	...
Special work		...	...	...	...	...	7,750	...	22,000	39,353	...	...	...
Grand Total		...	...	...	...	2,17,384	3,45,858	...	26,72,598	27,27,862	...	...	...

APPENDIX II—*continued.*

Progress and cost in District operations during the year ending 30th September 1918.

District Tippera-Noakhali—Commenced 1913.] **[Estimated area 3,200 sq. miles—4 Blocks.**

Branch of work.	Unit of report.	Progress. For the year under report. Programme according to sanctioned programme for whole operation.	Progress. For the year under report. Performance.	Progress. Up to date. Programme according to sanctioned programme for whole operation.	Progress. Up to date. Performance.	Cost (including book-debit and indirect charges). For the year under report. Estimated expenditure according to sanctioned estimate for whole operation.	For the year under report. Actual expenditure.	For the year under report. Actual cost rate.	Up to date. Estimated expenditure according to sanctioned estimate for whole operation.	Up to date. Actual expenditure.	Up to date. Actual cost rate.	Cost rate to which sanctioned estimate for whole operation works out.	Standard cost rate for 4-block district.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral Survey	Square miles	750	707	3,200	2,991	82,500	74,337	105	3,52,000	3,26,627	109	110	115
Khanapuri	Ditto	750	707	3,200	2,991	27,750	28,663	41	1,18,400	1,23,362	41	37	39
	Plots	...	1,055,053	...	...								
Initial recess	Square miles	750	707	3,200	2,991	13,500	10,621	15	57,600	46,230	15	18	18
Bujharat	Ditto	750	707	3,200	2,991	64,500	67,688	96	2,75,200	2 70,549	90	86	94
	Plots	...	1,073,062	...	...	...	...	...	...	...	...	...	1
	Interests	...	228,600	...	...	...	...	...	...	...	...	...	...
Attestation	Square miles	700	1,190	2,450	2 831	46,200	54,190	46	1,61,700	1,35,744	48	66	66
	Interests	...	431,409										
Draft publication	Square miles	...	1,688	...	2,729	...	...	...	...	...	...	...	...
Objections	Ditto	750	749	2,275	2,303	20,250	11,481	15	61,425	36,532	12	27	27
	Cases	...	14,693										
Final office work—													
Jamch	Square miles	750	753	2,275	2,303	11,250	24,049	32	34,125	71,013	34	15	20
Statistics	Ditto	900	1,095	1,750	1,640	13,500	3,373	3	26,250	11,830	7	15	10
16" maps	Ditto	900	873	1,750	1,473	7,200	3,483	4	14,000	6,782	5	8	6
Topographical maps	Ditto	900	873	1,750	1,492		1,666	2		3,069	2		2
Final records	Ditto	900	1,296	1,750	1,779	48,600	68,874	53	94,500	96,003	54	54	54
	Interests	...	412,689	...	641,654								
Computation and recovery	Square miles	866	790	1,108	940	17,320	13,065	17	22,160	15,996	17	20	20
Final publication	Ditto	866	830	1,108	1,025	...	...	...	...	...	...	...	...
Case work—													
Section 105	Tenancies	13,914	1,658	13,914	1,658								
,, 106	Cases	331	...	...	...	7,920	1,270	...	7,920	1,270	...	16	16
,, 108A	Cases	...	...	331	...								
,, 40	Cases	...	...	...	...								
Jamabandi	Square miles	160	110	266	206	8,000	7,106	65	13,300	15,176	74	50	...
Diara	Ditto	...	...	...	11	...	245	..	...	1,005	...	...	...
Operations under section 112	Ditto	...	...	...	...	...	..	...	...	...	...	...	...
Municipalities	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Supervision	.....	...	...	...	...	1,02,008	75,428	...	4,05,047	2,89,038	...	...	179
Supplies, services and contingencies—													
(1) Ordinary	.....	...	...	...	...	25,653	95,078	...	2,27,876	3,46,657	...	...	97
(2) Press	.....	...	...	...	...	8,950	7,995	...	37,150	21,645	...	...	15
Director of Land Records' control	.....	...	...	...	...								
Total	.....	...	...	...	...	5,05,101	...	...	19,08,653	...	...	...	...
Special work	.....	...	...	...	...	...	14,775	...	...	30,803	...	...	...
Grand Total	.....	...	...	...	...	5,05,101	5,64,067	...	19,08,653	18,52,028	...	...	...

Progress and cost in District operations during the year ending 30th September 1918.

District Jessore—Commenced 21st October 1918.] **[Estimated area 2,900 sq. miles—4 Blocks.**

Branch of work.	Unit of report.	Progress. For the year under report. Programme according to sanctioned programme for whole operation.	Progress. For the year under report. Performance.	Progress. Up to date. Programme according to sanctioned programme for whole operation.	Progress. Up to date. Performance.	Cost (including book-debit and indirect charges). For the year under report. Estimated expenditure according to sanctioned estimate for whole operation.	Actual expenditure.	Actual cost rate.	Up to date. Estimated expenditure according to sanctioned estimate for whole operation.	Actual expenditure.	Actual cost rate.	Cost rate to which sanctioned estimate for whole operation works out.	Standard cost rate for 2-block, 3-block district, etc. (as the case may be).
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral Survey	Square miles	994	839	994	839	1,24,343	91,510	109	1,24,343	91,510	109	125	115
Khanapuri	Ditto	994	828	994	828	42,090	63,667	77	42,090	63,667	77	42	39
	Plots	994,000	1,426,360	994,000	1,426,360								
Initial recess	Square miles	994	828	994	828	27,720	12,004	14	27,720	12,004	14	38	18
Bujharat	Ditto	994	535	994	535	88,981	61,328	115	88,981	61,328	115	89	94
	Plots	994,000	1,007,420	994,000	1,007,420								
	Interests	248,500	374,590	248,500	374,590								
Attestation	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
	Interests	...	...	...	...	...	...	...	...	...	...	...	...
Draft publication	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
Objections	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
	Cases	...	...	...	...	...	...	...	...	...	...	...	...
Final office work—													
Jarch	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
Statistics	Ditto	994	828	994	828	...	4,545	5	...	4,545	5	...	...
16" maps	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Topographical maps	Di to	...	...	...	...	...	...	...	...	...	...	...	...
Final records	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
	Interests	...	...	...	...	...	...	...	...	...	...	...	...
Computation and recovery	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
Final publication	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Case work—													
Section 105	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
	Cases	...	...	...	...	...	...	...	...	...	...	...	...
,, 106	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
	Cases	...	...	...	...	...	...	...	...	...	...	...	...
,, 108A	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
	Cases	...	...	...	...	...	...	...	...	...	...	...	...
,, 40	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
	Cases	...	...	...	...	...	...	...	...	...	...	...	...
Jamabandi	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
Diara	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Operations under section 112	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Municipalities	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Supervision	.....	...	...	...	...	96,310	53,942	...	96,310	53,942	...	...	...
Supplies, services and contingencies—													
(1) Ordinary	.....	...	...	...	...	...	...	...	...	...	...	...	...
(2) Press	.....	...	...	...	...	1,25,984	32,562	...	1,25,984	32,562	...	...	...
Director of Land Records' control	.....	...	...	...	...	4,834	2,406	...	4,834	2,406	...	...	...
Total	.....	...	...	...	...	5,09,262	3,21,964	...	5,09,262	3,21,964	...	...	...
Special work	.....	...	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL	.....	...	...	...	...	5,09,262	3,21,964	...	5,09,262	3,21,964	...	...	...

APPENDIX II—*concluded.*

Progress and cost in District operations during the year ending 30th September 1918.

District Bankura—Commenced 31st October 1917.] **[Estimated area 3,238 sq. miles—4 Blocks, including Asansol Sub-division of the Burdwan district.**

Branch of work.	Unit of report.	Progress. For the year under report. Programme according to sanctioned programme for whole operation.	Progress. For the year under report. Performance.	Progress. Up to date. Programme according to sanctioned programme for whole operation.	Progress. Up to date. Performance.	Cost (including book-debit and indirect charges). For the year under report. Estimated expenditure according to sanctioned estimate for whole operation.	Actual expenditure.	Actual cost rate.	Up to date. Estimated expenditure according to sanctioned estimate for whole operation.	Actual expenditure.	Actual cost rate.	Cost rate to which sanctioned estimate for whole operation works out.	Standard cost rate for 4-block district.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral Survey	Square miles	968	971	968	971	90,610	86,420	89	90,610	86,420	89	115	115
Khanapuri	Ditto	968	971	968	971	38,413	29,131	30	38,413	29,131	30	38	39
Initial recess..	Plots	968,000	1,026,398	968,000	1,026,398	17,400	13,536	14	17,400	13,536	14	18	18
Bujharat	Square miles	968	971	968	971								
	Ditto	968	971	968	971								
	Plots	968,000	1,026,398	968,000	1,026,398	79,838	72,757	75	79,838	72,757	75	88	95
	Interests	242,000	166,000	242,000	166,000								
Attestation	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
	Interests	...	...	...	...	...	...	...	...	...	...	...	...
Draft publication	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
Objection	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
	Cases	...	...	...	...	...	...	...	...	...	...	...	...
Final office work—													
Janch	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
Statistics	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
16" maps	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Topographical maps	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Final records	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
	Interests	...	...	...	...	...	...	...	...	...	...	...	...
Computation and recovery	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
Final publi ation	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Case work—													
Section 105	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
	Tenancies	...	...	...	...	...	...	...	...	...	...	...	...
,, 106	Square miles	...	...	...		...	...	...	...	...	...	...	...
	Ca es	...	...	...	...	...	...	...	...	...	...	...	...
,, 108A	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
	Cas s	...	...	...	...	...	...	...	...	...	...	...	...
,, 40	Square mile	...	...	...	...	...	...	...	...	...	...	...	...
	Cases	...	...	...	...	...	...	...	...	...	...	...	...
Jamabandi	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
Diara	Dit o	...	...	...	...	...	...	...	...	...	...	...	...
Operations under section 112	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Municipalities	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Supervision	.....	...	...	...	...	...	36,938	38	...	36,938	38	...	...
Supplies, services and contingencies—													
(1) Ordinary	.....	...	...	...	...	...	57,108	...	...	57,108	...	...	...
(2) Press	.....	...	...	...	...	...	...	...	...	...	...	...	...
Director of Land Records' control	.....	...	...	...	...	...	2,036	...	...	2,036	...	...	...
Total	.....	...	...	...	...	...	...	...	...	...	...	...	...
Special work	.....	...	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL	.....	...	...	...	...	...	...	...	...	...	...	...	...

APPENDIX III.

Return of disputes and inspections during the year ending 30th September 1918.

DISTRICT.	Area in sq. miles cadastrally surveyed during the season.	PERSONAL PARTIAL IN LINEAR MILES.			Independent partial by linear miles.	Total number of plots khanapuried.	NUMBER OF PLOTS TESTED.			Number of boundary disputes decided.	NUMBER OF INTERNAL DISPUTES DECIDED.	
		By Gazetted officers.	By Kanungoes and Head Inspectors.	By Inspectors.			By Gazetted officers.	By Kanungoes and Head Inspectors.	By Inspectors.		During Khanapuri and Bujharat.	During attestation.
1	2	3	4	5	6	7	8	9	10	11	12	13
Major operations.												
Bankura ...	971	122	2,575	...	...	1,026,398	5,361	48,252	...	157	4,384	...
Jessore ...	828	734	3,194	...	...	1,426,360	72,318	1,426,360	...	30	8,781	...
Tippera-Noakhali.	707	229	3,143	...	...	1,055,053	...	74,910	...	56	5,958	2,980
Rajshahi ...	...	...	...	...	...	...	...	...	...	93	...	762
Minor operations.												
Hooghly ...	3·25	7	...	...	2	7,345	1,025	...	...	...	14	105
Howrah ...	3·20	2	9	...	2	4,396	100	435	...	1	...	...
24-Parganas ...	2·30	4	...	...	4	1,165	39	...	...	...	...	...
Faridpur ...	7·50	sq. miles. 10	sq. miles. 38·55	...	...	6,850	200	715	...	1	79	...
Dinajpur ...	1·68	6	...	...	...	1,991	622	...	...	...	195	22

APPENDIX IV.

Progress in revision of Land Revenue during the year ending 30th September 1918.

District.	Number of estates under revision.	Total area in acres.	Area in which rent-roll has been draft-published.		Objections under section 104E.		Area in which rent-roll confirmed under section 104E.	Effect of the rental of raiyats.									Area in which record-of-rights finally published.	Number of estates in which revision of land revenue completed.	Financial result.		Percentage of increase of rent.	Percentage of increase of revenue.
								Old rent.	New rent.	Amount of increase due to—					Amount of decrease due to—				Old revenue.	New revenue.		
			In the year under report.	Up to the end of the year under report.	Pending for decision.	Decided.				Increase in size.	Extension of cultivation.	Increased fertility of soil.	Rise in prices.	Neighbouring rates.	Decrease in area.	Deterioration of the soil.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
								Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.					Rs.	Rs.		
Howrah	2	592·76	...	...	...	...	12·05	47	131	...	30	...	...	54	...	...	12·05	1	47	131	179	...
Midnapore	56	26,748	14,975	14,975	2,713	...	917	2,484	4,906	1,443	306	4	668	...	...	...	778	4	2,469	4,599	...	...
24-Parganas	4	10,037	714	10,037	61	...	9,323	23,509	38,961	11,572	...	1,205	2,675	...	...	...	9,323	3	23,509	38,961	65·7	65·7
Nadia	3*	112	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	726	975	...	34
Mymensingh (district operations).	35	640	640	50,880	...	1	640	1,329	4,618	...	189	100			...	...	640	34	1,079	1,347	22	25
Mymensingh (minor operations).	33	13,590	7,830	13,590	...	22	7,232	8,103	11,406	...	2,427	525			...	...	7,232	32	7,886	8,518	46	8
Faridpur	4	9,185·66	9,185·66	9,185·66	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rajshahi (including dia-a of Pabna, Nadia and Murshidabad).	59+2	43,729	239	349	...	1	239	593	657	...	...	63	...	..	...	...	239	2	593	657	10·79	+10·79
Tippera-Noakhali ...	52	118	118	110	1·28	...	110	64,008	92,131	1,835	9,068	...	70,220		...	...	89	30	43,021	78,798	44	83

* Summarily settled.

APPENDIX V.

Return of Rent-settlement work in areas not under revision of Land Revenue during the year ending 30th September 1918.

District.	Commutation under section 40.			Proceedings under section 109(c) (West Bengal districts only).				Class of tenants.	Proceedings under section 105.										
													Analysis of variation in the case of raiyats.						
													Amount of increase due to—					Amount of decrease due to—	
	Number of cases dealt with.	Commutation allowed.	Commutation refused.	Number of tenants.	Rent according to landlord.	Rent legally payable.	Rent settled by compromise.		Number of tenants for whom a fair rent has been determined.	Former rent.	New rent.	Difference per cent. + or —.	Increase in area, section 52 (a).	Prevailing rates, section 30 (a).	Rise in prices, section 30 (b).	Landlord's improvement, section 30 (c).	Fluvial action, section 30 (d).	Decrease in area, section 52 (b).	Permanent deterioration of soil, section 38 (1) (a).
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
					Rs.	Rs.	Rs.			Rs.	Rs.		Rs.	Rs.	Rs.			Rs.	
Hooghly	...	...	...	...	...	...	...	Raiyats	2	91	108	+18	...	...	17	...	...	...	...
Howrah	...	...	...	...	...	...	...	Tenure-holders ...	2	...	29	...	...	...	...	...	...	...	...
								Raiyats	72	252	295	+15	16	...	27	...	...	...	...
								Raiyats newly assessed	15	...	74	...	...	74	...	...	...	...	...
Midnapore	3,841	574	3,267	...	...	...	...	Raiyats	50,612	3,20,867	3,73,860	+16·52	23,553	421	29,082	...	...	62	...
								Tenure-holders... ...	850	24,729	32,310	+30·65	...	...	...	...	...	...	...
24-Parganas	...	...	...	...	...	...	...	Raiyats	300	6,018	6,837	+13·6	...	...	819	...	...	...	...
Murshidabad	...	...	...	...	...	...	...	Tenure-holders ...	87	1,654	2,320	+40	...	346	320	...	...	...	...
								Raiyats	14,185	25,249	33,114	+31	...	2,301	5,564	...	...	...	...
								Under-raiyats	83	209	303	+45	...	42	52	...	...	...	...
Murshidabad (Fatehsingh pargana).	...	...	...	...	...	...	...	Tenure-holders ...	239*	304	1,040	+32	...	...	...	...	...	...	...
								Raiyats	808	7,176	8,240	+15	...	...	1,067	...	...	...	...
Khulna	...	...	...	...	...	...	...	Tenure-holders ...	547	3,658	5,249	+42							
								Raiyats	2,625	5,258	8,481	+62	3,223	...	665	...	...	...	...
								Under-raiyats	231	269	454	+49							
Dacca	62	22	40	...	...	...	..	Raiyats	14,820	95,240	1,24,390	+23	15,463	551	13,375	...	...	239	...
								Tenure-holders ...	2	9	10	+11	...	...	...	...	...	...	...
Mymensingh	...	...	...	...	...	...	...	Raiyats	56,598	4,25,905	5,44,321	+28	70,416	...	48,000	...	...	...	...
Rajshahi	...	...	...	...	...	...	...	Tenure-holders ...	482	9,647	11,899	+23·34	...	...	...	...	...	...	...
Dinajpur	...	...	...	...	...	...	...	Raiyats	45	88	106	+20·45	...	...	1·8	...	...	...	...
								Raiyats	15,759	1,38,865	1,63,648	+17·84	10,516	...	14,369	...	...	105	...
Tippera-Noakhali ...	...	...	...	...	...	...	...	Tenure-holders ...	293	4,461	5,313	+19							
								Raiyats	398	3,099	4,284	+38	794	...	420	...	...	29	...
								Under-raiyats	7	62	64	+3							

* Including 213 rent-free holdings.

APPENDIX VI.

Results of appeals during the year ending 30th September 1918.

Name of estate or tract under settlement.	Nature of case.	Pending from previous year.	Instituted during the year.	Disposed of during the year.	Balance pending.	Upheld.	Modified.	Reversed.	Cases returned for retrial.
1	2	3	4	5	6	7	8	9	10
Hooghly (minor operations) ...	Section 105 ...	21	14	...	35	...	...	...	...
Howrah (minor operations) ...	Do. 105 ...	...	6	...	6	...	...	...	...
Bankura	Boundary disputes	...	52	34	18	33	1	...	...
Midnapore	Commutation appeal	26	41	38	29	23	14	1	...
	Section 104R ...	...	6	2	4	2	...	...	...
	Diara objections ...	1	...	1	...	1	...	...	...
	Sections 104G and 112.	...	1,497	...	1,497	...	...	...	...
	Section 105... ...	...	1,864	185	1,679	177	53	N41	55
24-Parganas	Section 105 ...	20	3	14	9	...	13	...	1
	Do. 106 ...	16	...	14	2	9	1	1	3
Nadia	Section 105 objections.	290	...	2	288	2*	...	...	...
Murshidabad	Section 105 ...	...	88	33	55	29	3	1	...
Murshidabad (Fatehsingh pargana).	Do. 105 ...	...	5†	1	4	1	...	...	...
Khulna	Do. 105 ...	...	6	...	6	...	...	...	...
Jessore	Boundary disputes	...	6	...	6	...	...	...	...
	Fine cases	...	1	1	...	1	...	...	...
Dacca	Commutation appeal	...	10	10	...	4	6	...	...
	Section 105 ...	112	210	150	172	134	3	11	2
	Do. 106 ...	7	29	12	24	9	2	1	...
Mymensingh (district operations).	Section 105 ...	137	219	167	189	74	32	34	27
	Do. 106 ...	176	103	125	154	65	45	13	2
Mymensingh (minor operations).	Section 104E ...	...	4	2	2	2	...	...	...
Raishahi	Boundary disputes	43	42	59	26	36	23	...	...
	Section 105 ...	...	93	1	92	7	...	...	...
	Do. 106 ...	...	17	...	17	...	...	...	...
Tippera-Noakhali	Section 104G ...	55	220	194	81	184	7	1	2
	Boundary disputes	...	35	35	...	32	3	...	...

* Withdrawn by the appellants.
† Revisional operations.

APPENDIX VII.

Nature and number of holdings for which final statistics have been completed during the year ending 30th September 1918.

DISTRICT.	Name of each estate, tract under settlement.	Area for which final statistics were completed during the year.	NUMBER OF KHATIAN RECORDED IN THE NAME OF OR FOR—														
			Proprietor.		Rent-free tenure-holders.		Tenure-holders (other than rent-free).	Raiyats at fixed rates or fixed rents.	Rent-free raiyats.		Settled and occupancy raiyats.	Non-occupancy raiyats.	Occupants (of non-agricultural holdings).	Under-raiyats.	Unoccupied lands (including area outside the records).	Lands occupied for public purposes.	Total.
			As private lands.	Not as private lands.	Service.	Others.			Service.	Others.							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
		Square miles.															
Hooghly ...	Private Estates	2·35	...	37	8	100	104	61	7	89	961	13	17	175	·13	4	1,576·13
Howrah ...	Ditto ...	1·75	...	...	...	20	4	45	4	43	552	11	20	122	·23	...	821·23
Midnapore ...	District operations.	1,466	...	3,076	...	5,152	10,897	9,198	3,196	5,694	241,682	2,011	122	15,003	67	273	288,320
24-Parganas ...	Private Estates	18·91	8	45	...	714	81	124	...	...	2,688	435	119	3,952	4	10	8,180
Tippera ... Noakhali ...	District operations.	1,095	...	17,569	...	8,346	44,596	13,097	1,551	349	168,988	5,513	3,143	31,025	104	809	295,100
Rajshahi ...	Ditto ...	787	...	3,898	65	13,221	12,382	2,527	3,212	45	202,912	6,752	1,752	99,532	68	27	346,393
Dinajpur ...	Private Estates	...	...	6	...	4	2	...	...	8	670	8	...	14	...	2	714
Malda ...	Ditto ...	9	...	19	...	4	5	1	3	21	1,928	146	139	82	...	...	2,348

APPENDIX VIII.

Progress made in recovery of costs during the year ending 30th September 1918.

Division.	Districts.	Estates or tract under settlement.	Demand (outstanding plus current).			Collections.							Balance.		
			Landlord's share.	Occupier's share.	Total.	Landlord's share.			Occupier's share.			Grand total collected.	Landlord's share.	Occupier's share.	Total.
						Voluntary.	By certificate.	Total.	Voluntary.	By certificate.	Total.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
A.—*Imperial operations.*															
Burdwan	Midnapur ...	District operations ...	...	...	10,93,623	4,63,547	77,311	5,40,858	2,67,831	2,598	2,70,429	8,11,297	...	...	2,82,336
Dacca	Dacca	Ditto ...	...	...	...	25,965	27,218	53,183	...	...	...	53,183	32,791	...	...
Dacca	Mymensingh...	Ditto ...	4,90,354	2,60,776	7,51,130	2,40,721	1,21,644	3,62,365	1,68,683	...	1,68,683	5,31,048	67,162	1,52,920	2,20,082
Chittagong	Tippera-Noakhali ...	Ditto ...	2,98,776	1,87,414	4,86,190	2,48,093	23,708	2,71,801	1,60,383	2,887	1,63,270	4,35,071	26,975	24,144	51,119*
Rajshahi	Rajshahi ...	Ditto ...	4,80,870	2,42,927	7,23,797	2,79,926	52,325	5,32,251	1,95,702	316	1,96,018	5,28,269	1,48,619	46,909	1,95,528
B.—*Minor operations.*															
Burdwan	Hooghly ...	Petty Estates ...	...	...	...	...	...	...	92	...	92	92	...	...	...
Presidency	24-Parganas ...	Ditto ...	5,936	...	5,936	4,891	32	4,923	...	...	...	4,923	1,013	...	1,013
Ditto	Murshidabad ...	Ditto ...	9,304	5,485	14,989	9,304	...	9,304	2,805	2,289	5,094	14,434	...	391	391
Ditto	Khulna ...	Ditto ...	2,566	5,003	7,569	...	...	...	4,389	...	4,389	4,389	...	613	613
Dacca	Bakarganj ...	Petty Private Estates ...	...	2,887	2,887	...	...	...	1,161	89	1,250	1,250	...	1,637	1,637

* Rs. 5,000 remitted as unrecoverable.

APPENDIX IX.

General progress and cost in Survey and Settlement work done during the year ending 30th September 1918.

MINOR OPERATIONS.

Branches of work.	Units of report.	Hooghly.			Howrah.			24-Parganas.			Murshidabad.			Murshidabad (Fatehsingh Pargana).		
		Programme for the year under report.	Work done during the year under report.	Cost.	Programme for the year under report.	Work done during the year under report.	Cost.	Programme for the year under report.	Work done during the year under report.	Cost.	Programme for the year under report.	Work done during the year under report.	Cost.	Programme for the year under report.	Work done during the year under report.	Cost.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
				Rs.			Rs.			Rs.			Rs.			Rs.
Traverse Survey (under Settlement Officer).	Square miles ...	3·25	3·25	76	3·28	3·20	100	...	...		...	..	...	...	...	...
Cadastral Survey	Ditto	3·25	3·25	380	3·28	3·20	324	2·30	2·30		...	...	...	...	...	...
Khanapuri	Ditto	3·25	3·25	382	3·28	3·20	400	2·30	2·30		...	...	...	...	...	...
	Plots	7,345	7,345		5,000	4,396		1,165	1,165		...	...	...	...	...	...
Preliminary office work	Square miles ...	3·25	3·25	362	3·28	3·20	31	2·30	2·30		...	...	...	...	...	...
Bujharat	Ditto	5·26	2·01		3·28	·67		1·11	1·11		...	...	...	...	...	...
	Plots	11,068	3,723	779	5,000	600	41	483	483		...	...	...	...	...	...
	Interests	3,465	1,409		2,080	300		140	140		...	...	...	...	...	...
Attestation	Square miles	5·26	2·01	220	3·28	·94	66	1·11	1·11		...	...	...	...	...	...
	Interests	3,465	1,348		2,080	...		140	140		...	...	...	...	...	...
Draft Publication	Square miles	7·10	4·35	98	4·90	·94		1·11	1·11		...	...	...	...	...	...
Objections under section 103A ...	Ditto	7·10	4·35	265	...	...	...	1·11	1·11		...	...	...	...	...	...
	Cases	537	537		...	...	...	7	7		...	...	...	...	...	...
Final Office work—																
Jamch	Square miles	7·10	4·35		2·85	1·77	110	1·11	1·11		...	...	...	...	...	...
Statistics	Ditto	7·10	4·35		...	...	...	17·30	11·38		...	...	...	...	...	...
Preparation of 16″ maps	Ditto	7·10	4·35	287	2·85	1·77	40	1·11	1·11	3,328	...	...	...	...	...	...
Topographical maps	Ditto	...	...		...	...		...	...		...	...	...	...	...	...
Preparation of Final records	Ditto	5·85	4·34	137	2·85	1·77	40	21·60	20·49		...	...	...	...	...	...
	Interests	...	1,344		837	837		12,648	12,508		...	...	...	...	...	47
Final publication	Square miles	5·85	2·01	36	2·85	1·77		21·60	20·49		...	...	...	...	...	...
Recovery of costs	Ditto	2·33	·33	30	...	...	...	...	...		7	7	241	...	...	114
Case work under section 108A	Cases	...	...	...	...	...	...	...	...		11	11	...	43	37	
Ditto ditto 105	Do.	2	2	..	89	89		675	300		6,067	5,999	5,072	1,605 (tenancies)	1,605 (tenancies)	2,318
Ditto ditto 106	Do.	...	...	...	24	24	700	99	16		...	...	...	26	22	
Ditto ditto 112	Do.	...	...	...	...	...		...	...		...	...	...	...	...	...
Ditto ditto 104E(*1*) ...	Do.	...	...	...	...	...	...	...	...		...	...	...	...	..	...
Ditto ditty 109(*c*)	Do.	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Revision in temporarily-settled estates— (*a*) Draft publication section 103A ...	Square miles	...	...	...	...	...	5	1·11	1·11		...	...	...	...	...	...
(*b*) Final publication	Ditto	...	...	...	...	...	...	15·68	14·57		...	...	...	...	...	528
Total cost ...	Amount Rs. ...	...	...	3,052	...	...	1,577	...	...	3,328	...	...	5,313	...	...	3,007

APPENDIX IX—*concluded.*

General progress and cost in Survey and Settlement work done during the year ending 30th September 1918.

MINOR OPERATIONS.

Branches of work.	Units of report.	Khulna.			Mymensingh.			Faridpur.			Bakarganj.			Dinajpur.			Malda.		
		Programme for the year under report.	Work done during the year under report.	Cost.	Programme for the year under report.	Work done during the year under report.	Cost.	Programme for the year under report.	Work done during the year under report.	Cost.	Programme for the year under report.	Work done during the year under report.	Cost.	Programme for the year under report.	Work done during the year under report.	Cost.	Programme for the year under report.	Work done during the year under report.	Cost.
		18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
				Rs.			Rs.			Rs.			Rs.			Rs.			Rs.
Traverse Survey (under Settlement Officer).	Square miles	...	...	...	...	...	...	7·50	7·50	392	...	...	...	1·93	2·23	145	...	...	...
Cadastral Survey	Ditto	...	...	...	...	...	...	7·50	7·50	801	...	...	...	1·93	1·67	107	...	...	...
Khanapuri	Ditto	...	...	...	...	...	...	7·50	7·50	142	...	...	...	1·93	1·68	40	...	...	...
	Plots	...	...	...	...	...	...	6,850	6,850					...	1,991				
Preliminary office work	Square miles	...	...	...	...	...	...	7·50	7·50	25	...	...	...	1·93	1·68	38	...	...	...
Bujharat	Ditto	...	...	...	...	...	...	14	14										
	Plots	...	...	...	...	...	...	10,850	10,850	1,463	...	...	...	...	...	...	...	...	...
	Interests	...	...	...	...	...	...	6,400	6,400										
Attestation	Square miles	3·56	3·56	1,794	...	...	...	14	14	135	...	...	...	1·93	1·68	25	...	...	...
	Interests	...	...					6,400	6,400					...	770				
Draft publication	Square miles	19·89	19·89	...	...	...	...	14	14	...	...	...	...	1·93	1·63	...	8	8	166
Objections under section 103A ...	Ditto	19·89	...	1,061	...	...	...	...	...	45	...	...	...	1·93	...	...	8	8	547
	Cases	...	401					...	32					...	...	...	80	80	
Final office work—																			
Jamch	Square miles	19·89	13·56	358	...	...	...	14	14	135	...	...	...	1·93	...	...	8	8	70
Statistics	Ditto	19·89	13·56					...	...	...	...	...	...	1·93	...	...	8	8	
Preparation of 16″ maps	Ditto	19·89	13·56		21·3	21·3		10	10	50	...	...	...	1·93	...	...	8	8	
Topographical maps	Ditto	...	...	1,596	21·3	21·3	150	10	...	...	...	...	...	...	...	...	8	8	339
Preparation of final records ...	Ditto	19·89	13·56		21·3	11·3	691	10	...	...	...	...	...	1·93	...	...	8	8	
	Interests	...	...					3,300	...	...	...	...	...	...	...	...	2,359	2,359	
Final publication	Square miles	13·56	13·56		21·3	11·3	...	6	...	...	...	...	...	1·93	...	...	8	8	...
Recovery of costs	Ditto	13·56	...	1,777	...	...	...	...	...	...	13·75	13·75	216	1·93	...	...	...	...	...
Case work under section 108A	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	
Ditto ditto 105	Do.	892	863	...	...	...	...	...	...	...	...	...	...	...	...	...	1,380	5	814
Ditto ditto 106	Do.	16	13	...	...	...	...	...	...	...	...	...	...	...	...	...	49	...	
Ditto ditto 112	Do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ditto ditto 104E (*1*) ...	Do.	...	...	...	15·3	15·3	150	...	...	...	...	...	...	...	...	...	...	...	...
Ditto ditto 109 (*c*) ...	Do.	...	...	...	10·3	10·3	382	...	...	...	...	...	...	...	...	...	...	...	...
Revision in temporarily-settled estates—																			
(*a*) Draft publication, section 103A ...	Square miles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*b*) Final publication	Ditto	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total cost ...	Amount Rs.	...	...	6,586	...	...	1,673*	...	...	3,188	...	...	216	...	...	355	...	...	2,006

* Including Rs. 300 for settlement of Land Revenue.

APPENDIX X.

Statement showing the result of inspection of Survey marks during the year ending 31st March 1918.

Division and District.	Total number of estates surveyed under the Survey Act of Bengal Tenancy Act.	Total number of estates in which permanent survey marks were erected.	Number of marks erected in the estates mentioned in column 3.	Number of marks inspected during the year under report.	Result of inspection of marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
Government Estates and Temporarily-settled Estates.										
Burdwan — Purdwan	...	17	505	476	376	22	78	...	.....	
Burdwan — Birbhum	3	3	14	14	11	3	...	3	Rupees 7 met from miscellaneous improvement grant.	
Burdwan — Bankura	7	7	30	22	22	...	...	...	.....	
Burdwan — Midnapore	...	61	2,743	2,733	2,520	92	121	5	.....	
Burdwan — Hooghly	72	35	294	695	684	11	...	11	Rupees 3 met from Commissioner's grant.	
Burdwan — Howrah	14	14	250	250	246	3	1	3	Restored at the cost of the parties.	
Presidency — 24-Parganas	46	36	1,971	622	566	16	40	...	.....	
Presidency — Nadia	45	32	1,076	1,048	1,003	14	31	14	Rupees 21.	
Presidency — Murshidabad	71	62	967	967	882	3	82	9	Rupees 27-8 ...	Two persons were prosecuted under section 53 of the Survey Act but they were acquitted.
Presidency — Jessore	3	5	37	28	28	...	...	...	.....	
Presidency — Khulna	26	22	317	215	179	7	29	15	Rupees 15-2-6 met from Commissioner's grant.	
Dacca — Bakarganj	224	118	694	240	189	5	46	...	.....	
Dacca — Mymensingh	40	2	458	278	228	40	10	...	.....	
Chittagong — Chittagong	5	5	2,659	726	628	23	75	40	Rupees 45.	
Chittagong — Tippera	142	142	367	126	98	4	24	...	.....	
Chittagong — Noakhali	...	...	...	171	169	2	...	...	.....	
Rajshahi — Malda	30	26	243	243	234	...	9	...	.....	
Rajshahi — Bogra	2	2	478	125	114	10	1	6	Rupee 1 met from contingencies.	
Rajshahi — Pabna	5	5	22	22	12	10	...	...	.....	
Rajshahi — Jalpaiguri	5	5	1,967	142	141	...	1	...	.....	
Rajshahi — Darjeeling	4	3	193	193	193	...	...	...	.....	
Total	744	602	14,785	9,336	8,523	265	542	106		
Wards' Estates.										
Burdwan — Bankura	25	25	433	129	129	...	...	...	.....	
Burdwan — Midnapore	...	4	1,947	1,832	1,357	65	410	272	Rupees 250 met from D. L. R.'s grant.	
Burdwan — Hooghly	2	2	35	28	28	...	...	...	.....	
Presidency — Jessore	1	1	49	31	31	...	...	...	.....	
Presidency — Murshidabad	1	1	22	22	22	...	...	1	Rupees 3.	
Dacca — Bakarganj	55	2	1,096	1,096	1,057	5	34	...	.....	
Chittagong — Tippera	6	6	3,054	292	136	40	116	...	.....	
Rajshahi — Malda	2	2	125	85	85	...	...	...	.....	
Rajshahi — Dinajpur	2	2	683	234	231	1	2	...	.....	
Total	94	45	7,444	3,749	3,076	111	562	273		
Zamindari Estates.										
Burdwan — Burdwan	...	1	26	26	22	...	4	...	.....	
Burdwan — Birbhum	69	69	720	720	720	...	...	...	.....	
Burdwan — Midnapore	...	3	397	427	427	...	...	...	.....	
Burdwan — Bankura	71	71	409	409	373	7	29	...	.....	
Burdwan — Hooghly	71	60	355	270	260	1	9	10	Rupees 20 sanctioned by D. L. R.	
Burdwan — Howrah	5	5	23	23	23	...	...	...	.....	
Presidency — 24-Parganas	46	21	194	16	16	...	...	...	.....	
Presidency — Nadia	6	6	87	87	87	...	...	...	.....	
Presidency — Khulna	...	6	345	21	21	...	...	...	.....	
Presidency — Murshidabad	19	19	1,719	1,183	1,014	1	168	23	Rupees 49-3.	
Dacca — Bakarganj	3,026	3,026	4,507	11	11	...	...	...	.....	
Chittagong — Tippera	525	525	412	3	...	...	3	...	.....	
Chittagong — Noakhali	...	...	...	2	...	2	...	2	Rupees 415 met from L. R. Budget.	
Rajshahi — Malda	4	4	494	494	456	...	38	38	Rupees 176 met by zamindars concerned.	
Rajshahi — Pabna	16	16	224	224	182	40	2	...	.....	
Rajshahi — Rangpur	17	10	302	35	32	...	3	3	Rupees 23-8 met from L. R. Budget.	
Rajshahi — Jalpaiguri	2	2	316	316	305	...	11	...	.....	
Total	3,877	3,844	10,530	4,267	3,949	51	267	76		
Grand Total	4,715	4,491	32,759	17,352	15,548	427	1,377	455		

APPENDIX XI.

Statement showing maps in stock received and sold during the year ending 31st March 1918.

Particulars.	Number of copies.	Value.	Number of maps of which there are less than four copies in stock.
1	2	3	4
		Rs. A.	
District maps—			
Balance on the 1st April 1917 ...	371	...	...
Additions during the year ...	578	...	...
Total ...	949	...	...
Issue on public service ...	297	...	...
Issue by sale	55	21 12	...
Total ...	352	...	...
Balance on the 31st March 1918 ...	597	...	...
Thana maps—			
Balance on the 1st April 1917 ...	23,925	...	...
Additions during the year ...	14,591	...	...
Total ...	38,516	...	...
Issue on public service ...	5,255	...	...
Issue by sale	1,044	390 2	...
Total ...	6,299	...	...
Balance on the 31st March 1918 ..	32,217	...	...
Village maps—			
Balance on the 1st April 1917 ...	782,887	...	...
Additions during the year ...	103,235	...	...
Total ...	886,122	...	...
Issue on public service ...	1,494	...	...
Issue by sale	9,004	2,188 4	...
Total ...	10,498	...	...
Balance on the 31st March 1918 ...	875,624	...	...

APPENDIX XII.

Return of printed settlement records in stock, received and sold during the year ending 31st March 1918.

Districts.	Balance on 1st April 1917.	Additions during the year.	Total.	Issue on public service.	Issue by sale.	Total.	Balance on 31st March 1918.	Receipts. By cash.	Receipts. By court fees.
1	2	3	4	5	6	7	8	9	10
		Rs.	Rs.	Khatians.		Rs.	Rs.	Rs. A. P.	Rs. A.
Midnapore	...	13,30,658	13,30,658	...		Not reported.		...	...
Dacca	...	65,82,048	65,82,048	201	89,215	89,416	64,92,632	9,811 11 0	...
Mymensingh	68,89,875	...	68,89,875	26,47,283		26,47,283	42,42,592	13,032 4 6	16,204 8
Faridpur		Not reported						6,506 1 6	403 6
Bakarganj		Not reported							
Noakhali	...	4,17,242	4,17,242	724	14,266	14,990	4,02,252	11,690 5 1	...
Tippera									
Rajshahi	9,30,487	4,45,073	13,75,560	1,911	3,11,814	3,13,725	10,61,835	7,872 10 9	987 5
Jalpaiguri		Not reported.							
Total ...	78,20,362	87,75,021	1,65,95,383	30,65,458		...	...	...	...
				Plot Indexes.					
Midnapore	...	11,019	11,019	...	...	...	11,019	...	...
Dacca	...	27,570	27,570	10	148	158	27,412	37 0 0	...
Mymensingh	...	21,477	21,477	2,408		2,408	19,069	Not reported.	
Faridpur				Not reported.				23 8 0	0 4
Bakarganj				Not reported.					
Noakhali	...	3,162	3,162	45	64	109	3,053	302 12 0	...
Tippera									
Rajshahi	14,175	14,502	25,677	...	3,432	3,432	22,245	687 12 0	129 4
Jalpaiguri	Not reported.								
Total ...	14,175	77,730	88,905	6,107		6,107	82,798	1,130 8 0	

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B. S. Press—30-1-1919—2825J—326—R. F.

GOVERNMENT OF BENGAL.

REVENUE DEPARTMENT.

Land Revenue Branch.

CALCUTTA, THE 7TH MARCH 1919.

RESOLUTION—No. 2256L.R.

READ—

The Survey and Settlement Reports for the year ending 30th September 1918.

IN consequence of the policy enunciated by Government in the Resolution on the working of the Survey and Settlement Departments for the year 1916-17 that, although it was necessary to secure as much economy as possible during the war, it was, at the same time, incumbent on Government to provide continuous employment for the highly trained staff of the departments, survey operations were started in the year under review in the district of Nadia, and settlement operations resumed in the districts of Bankura and Jessore, in which operations had been postponed in 1915. On the other hand, in areas not under general settlement, that is to say, where district operations were not in progress, only summary resettlements of revenue extending the term of the previous settlements were made, unless a regular resettlement was likely to be immediately remunerative. In the same areas applications for the settlement of private estates were ordinarily refused, but for reasons other than economy. It is inexpedient from many points of view to deal with such estates piecemeal and preferable to wait for the advent of the district operations.

2. The main programme of traverse survey carried out by the Survey Department lay in the districts of Jessore, Nadia, Bankura and Burdwan, where an area of 2,134 square miles was dealt with by three survey parties, irrespective of 1,028 square miles in Jessore and Bankura where unidentified stations of the original traverse survey of 1914-15 were relaid. One survey party dealt with Jessore, where an area of 622 square miles falling in thanas Salkopa, Jhenida and Kaliganj, which now forms the second year's survey programme for the district, was traversed. The riverain tracts lying between the districts of Jessore and Faridpur on the east and Jessore and Khulna on the south, together with ten villages recently transferred from Jessore to Faridpur, were also traversed. Another survey party completed the traverse of 715 square miles in thanas Chakdah, Ranaghat, Santipur, Krishnagar, Nakashipara and Kaliganj in the district of Nadia. This is the survey programme for the first year in that district and excludes areas close to the Bhagirathi, where, in accordance with the ordinary procedure and because such areas are liable to change on account of fluvial action, the traverse survey is being undertaken this year, the same year as that of the cadastral or detailed survey of the area. The third survey party traversed portions of Bankura and Burdwan. The traverse survey of the Asansol subdivision in Burdwan, comprising 618 square miles, which had been subsequently included in the programme of work for the Bankura district with a view to the provision of up-to-date maps of the coal areas, was completed. In Bankura, 179 square miles in police-stations Saltora and Mejhia were surveyed. In these areas observations were also taken for the purpose of showing contour lines.

3. Comparative maps for 469 square miles of diara land falling between the districts of Rajshahi, Murshidabad and Malda were prepared. Miscellaneous work connected with the survey and mapping of Howrah and Cossipore-Chitpore Municipalities and isolated areas in various parts was also undertaken. Nearly a million and a half village maps were reproduced during the year by the Vandyke process. Some progress was also made in the

production of jurisdiction maps. The Governor in Council hopes, now that a definite system for their preparation is in force, that adequate arrangements will be made to bring out these important maps as soon as it can be conveniently managed in conjunction with the different settlement officers.

4. Exclusive of ordinary students, three district kanungos and six candidates for such posts completed their course of training in the Government Survey School near Comilla. The number of students admitted into the school was 28 against 24 in the preceding year.

5. Seven major operations for cadastral survey and the preparation of a record-of-rights were in progress in Jessore, Bankura, Dacca, Mymensingh, Midnapore, Tippera and Noakhali, Rajshahi and the neighbouring riparian areas in Pabna, Malda, Nadia and Murshidabad. The area cadastrally surveyed was 2,517 square miles and preliminary records were written for, 2,506 square miles, against 1,211 square miles in both cases for the previous year. Records were attested for 1,676 square miles and final records prepared for 3,142 square miles: the figures for last year were 1,891 and 3,468 square miles, respectively. In the minor operations in Hooghly, Howrah, 24-Parganas, Khulna, Murshidabad, Faridpur, Dinajpur and Malda the total outturn of cadastral survey and of final publication scarcely exceeded 18 and 57 square miles, respectively. A considerable amount of diara resumption and resettlement of land revenue was, however, accomplished in the course of these operations, both major and minor, mostly in Mymensingh, Rajshahi, Faridpur, Tippera and Noakhali. The total area of which a record-of-rights has now been completed in this Presidency is 30,203 square miles. This amounts to about 40 per cent. of the total area, exclusive of the large rivers of the Presidency. It comprises the whole of the Dacca Division, nearly the whole of the Chittagong Division, almost two districts in that of Rajshahi, practically one district in the Burdwan, but so far no district in the Presidency Division.

6. The three major operations in Dacca, Midnapore and Mymensingh had reached the closing stages, which are, ordinarily, recovery of costs, case-work—consisting mainly of the disposal of applications for the enhancement of rent under section 105, Bengal Tenancy Act—and the handing over of records to the Collector. Dacca was finished during the year under review with the disposal of the remaining applications for enhancement of rent. The Mymensingh settlement was nearly completed except for the disposal of a certain amount of case-work, some recovery and of resumption proceedings under Act IX of 1847, in particular, in the Jamuna diara for which special arrangements have been made: floods in Kishoreganj retarded recovery. Midnapore was mainly remarkable for the large number of applications for enhancement of rent. Though as many as 113,109 tenancies were dealt with, 71,163 were pending at the end of the year; this prevented the conclusion of the operations during the year.

7. The two major operations of Rajshahi and Tippera-Noakhali were in the intermediate stages. In Rajshahi, the records of the last and fifth block, comprising the diara areas of Malda and Murshidabad districts, were attested, objections were disposed of, and the final scrutiny completed. Case-work was in progress in the first block. Coercive measures for recovery were suspended in the areas where damage had been done by the abnormal floods in the Rajshahi Division.

Cadastral survey and stages up to the field-to-field verification of the map and the record were completed in all the remaining portions of Tippera district in thanas Muradnagar, Chanduria, Laksam, Comilla and Chauddagram. The progress of attestation was such that after the year's programme was finished it was found possible, with the assent of the landlords, to attest in advance of the programme the records of the area surveyed during the year. It is noteworthy that even in this settlement—previous accounts of which have tended to the conclusion that the raiyat in the districts of Tippera and Noakhali possesses an unusual power of looking after his own interests—illegal enhancements of rent on a large scale and impediments placed by landlords in the way of their tenants, when the latter were seeking to make improvements in the village water-supply, have now been discovered.

8. In the remaining two major operations of Jessore and Bankura, fresh ground has been broken by the Settlement Department. In Jessore, cadastral survey and initial record-writing were completed in 839 square miles, together with the field-to-field verification in 535 square miles, against a programme under both heads of 994 square miles. In the report satisfactory reasons have been given for the deficit, namely, the delay between the original traverse of 1914-15 and the cadastral operations of the year under review, the difficulty of replacing the lost traverse stations and the large number of plots and interests. The programme of the district has, accordingly, been changed under Government orders; and the traverse survey of the district will now be spread over four instead of three years altogether. In the preparation of the record other difficulties, it is reported, were also encountered. It is said that the system of land tenure in Magura thana contains many of the complications which made Faridpur the most difficult and expensive settlement yet encountered; that the people are litigious and that, therefore, much time was lost in examining bundles of Civil Court decrees which were placed into the hands of kanungos on the mere chance that they might help the case of the disputants who produced them; and that the shifting of rivers and khals was responsible for some of the most troublesome boundary disputes.

In Bankura, the whole of the first block of 971 square miles lying in the south of the district and comprised in thanas Raipur, Khatra, Simlapal and police-station Chhatna was finished up to the verification stage. Though the same necessity for the identification of the lost traverse stations of the year 1914-15 was experienced as in the case of Jessore, the circumstances were more favourable in that the country is undulating and not subject to floods, plots and interests were fewer, and the work is done under pleasanter conditions. The country comprised in the block is a continuation of the Chota Nagpur plateau and belongs to the "Jungle Mahals." The tenants are poor and conditions somewhat primitive. Produce rents are common and instances are not rare where a fowl or even a single vegetable has been recorded as the rent of an acre of land.

9. Except in Rajshahi and Midnapore, expenditure has in all settlements been kept within the estimates. In Rajshahi, the excess is due to the large number of plots and interests, while in Midnapore, case-work, as distinguished from settlement work proper, is responsible for the excess reported. Nevertheless, in these settlements the net cost of the operations on account of larger receipts from court-fees, may be less than that estimated. The Governor in Council is satisfied that the financial aspect of all operations has been as steadily and jealously kept in view as in the past.

10. In paragraph 10 of last year's resolution a reference was made to the novel experiment started for the maintenance of the record-of-rights of the Fatehsingh estate belonging to the Nawab Bahadur of Murshidabad with the object of realizing arrears of rent by the certificate procedure. So far the experiment has worked smoothly and successfully. A similar scheme has been sanctioned for introduction in the Enaitpur Mahal of the Mathurapur estate in the district of Malda.

11. Survey and settlement records and maps continued to be utilised more and more in all revenue and administrative work as well as in criminal and civil matters. It is reported that district boards and municipalities and even village panchayats have not been behindhand in their use. Exclusive of copies issued on public service, over 9,000 copies of village maps and 1,000 copies of thana maps were sold. Printed records-of-rights to the extent of about four lakhs of copies were sold in addition to those freely distributed in the course of recovery of costs. These facts, in the opinion of the Governor in Council, leave little room for doubt as to the utility and popularity of the record-of-rights.

12. To the ordinary public the technical procedure of survey and settlement operations seems dry and uninteresting. With the object of making it more intelligible the Settlement Department has published, at a small price, a useful brochure entitled "*Guide and Glossary to Survey and Settlement Records in Bengal*," explaining in plain language the different stages of the operations together with the law involved. This was modelled on a similar

publication prepared by Government in 1907 with reference to the practice in districts in Bihar.

13. His Excellency in Council regrets to have to record the death in France of Major J. C. Jack, D.S.O., M.C., from wounds received on active service. After being Assistant Settlement Officer of Bakarganj and Settlement Officer of that district and in Faridpur from 1902 onwards, he succeeded Mr. (now the Hon'ble Sir) N. D. Beatson Bell as Director of Land Records in 1912 and held charge of the department till the 11th April 1913. He left an indelible mark on the morale and traditions of the department which he did so much to strengthen and consolidate. Unfortunately, there were several other deaths in the superior and intermediate ranks of the settlement staff, including that of Mr. S. Klingenstein, I.C.S., Settlement Officer of Jessore, during the year.

Mr. C. A. O'Donel was in charge of the Bengal Survey Department throughout the year and justified the promise he evinced when he succeeded Major Hirst. Mr. M. C. McAlpin, I.C.S., after 5½ years' efficient and tactful administration as Director of Land Records, severed his connection with the Settlement Department towards the close of the year. The Governor in Council has pleasure in acknowledging the good work done by Messrs. Sachse, Jameson, Nelson, Thompson and Pringle. The services of the other numerous officers whose names are mentioned in the concluding portions of the two reports will be noted.

ORDER.—Ordered that this Resolution be published in the *Calcutta Gazette* and that a copy of it, together with copies of the two reports, be submitted to the Government of India.

By order of the Governor in Council,

SYED ABDUL LATIF,

for *Secy. to the Govt. of Bengal.*

No. 2297L.R.

COPY, with copies of the two reports, forwarded to the Surveyor-General of India for information.

No. 2298L.R.

COPY, with copy of the Survey Department's report, forwarded to the Municipal Department of this Government for information, with special reference to paragraphs 13 to 18 of the report.

No. 2299L.R.

COPY, with copies of the two reports, forwarded to the Appointment Department of this Government for information, with special reference to paragraph 13 of the Resolution.

No. 2300-2301L.R.

COPY forwarded to the Director of $\frac{\text{Surveys}}{\text{Land Records}}$, Bengal, for information.

By order of the Governor in Council,

S. A. LATIF,

Under-Secy. to the Govt. of Bengal.

CALCUTTA,
The 15th March 1919.

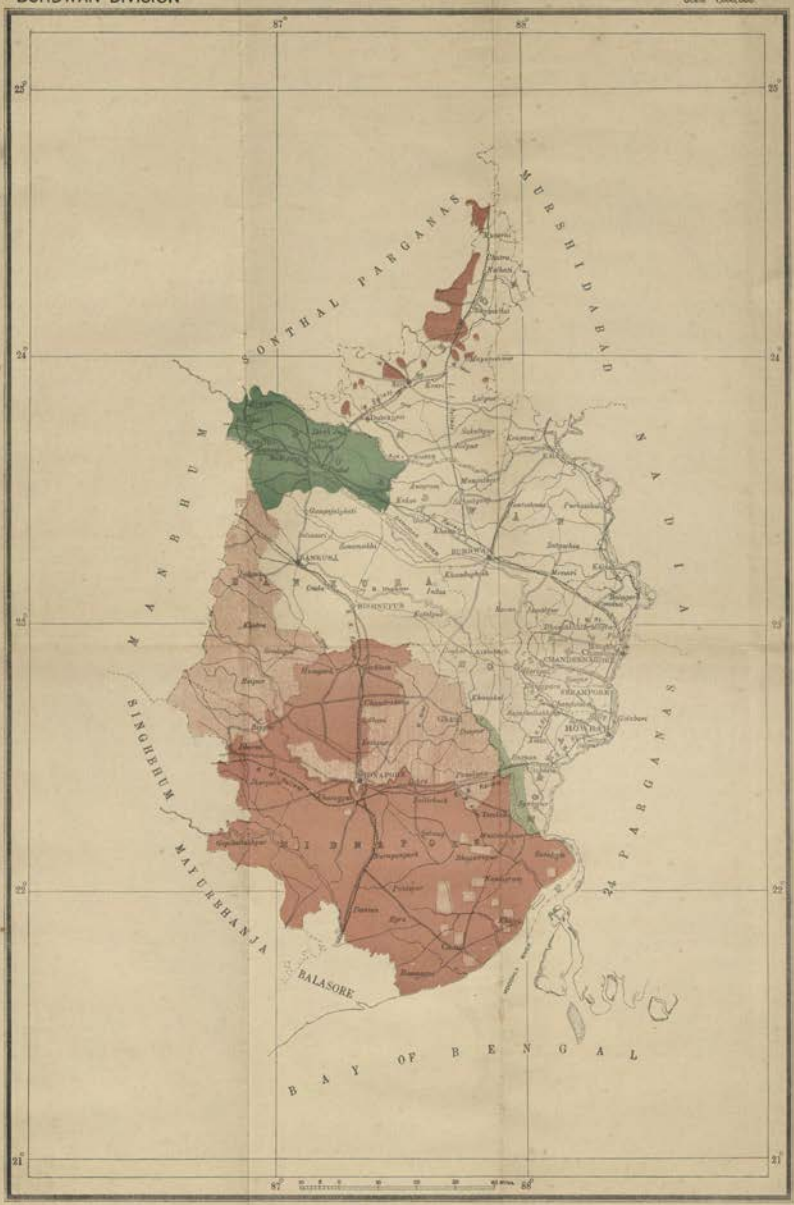
B. S Pres—19-3-1919—4224J—440—F. H V.

PROGRESS OF MAJOR SETTLEMENT WORK

BURDWAN DIVISION

TO 30th. SEPTEMBER 1918.

Scale 1/1,000,000



REFERENCES.

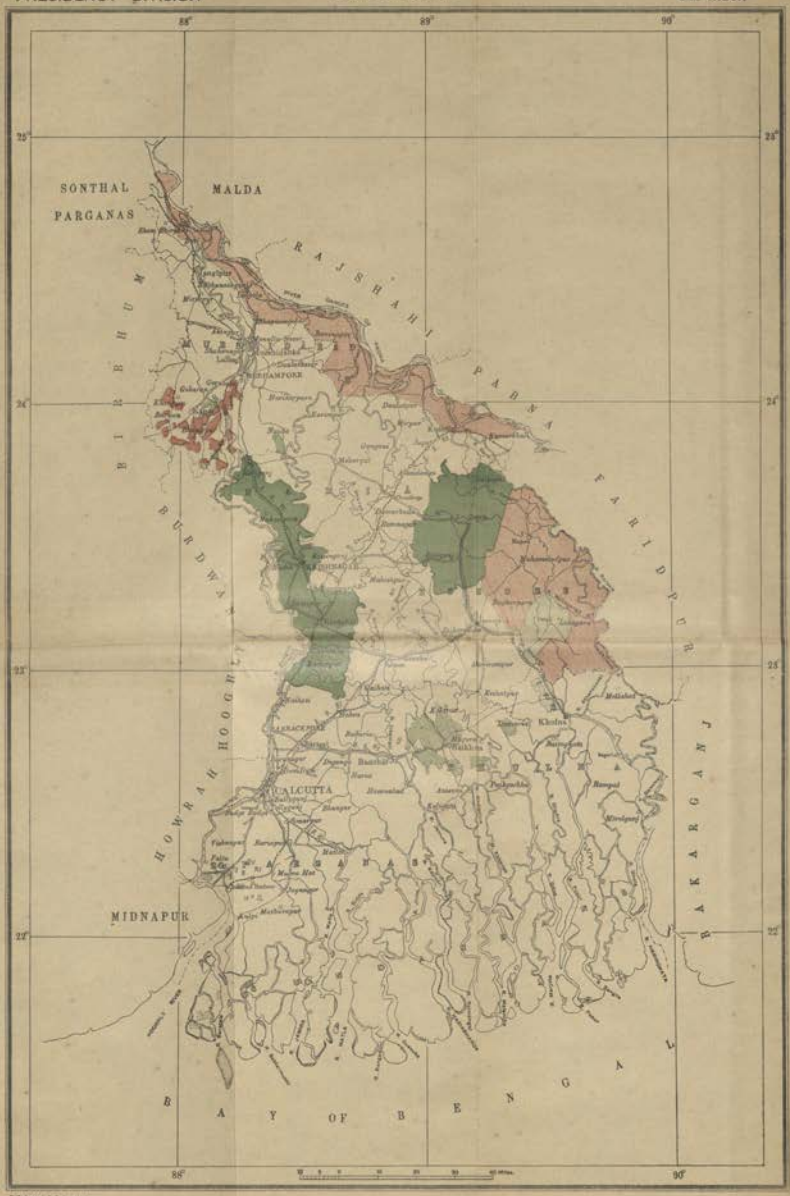
- Previously Finally Published
- Finally Published in 1917-18
- Draft Published up to 1917-18
- Previously Traversed
- Khanapuried in 1917—18
- Traversed in 1917—18

PROGRESS OF MAJOR SETTLEMENT WORK

PRESIDENCY DIVISION

TO 30th SEPTEMBER 1918.

Scale 1:500,000



REFERENCES.

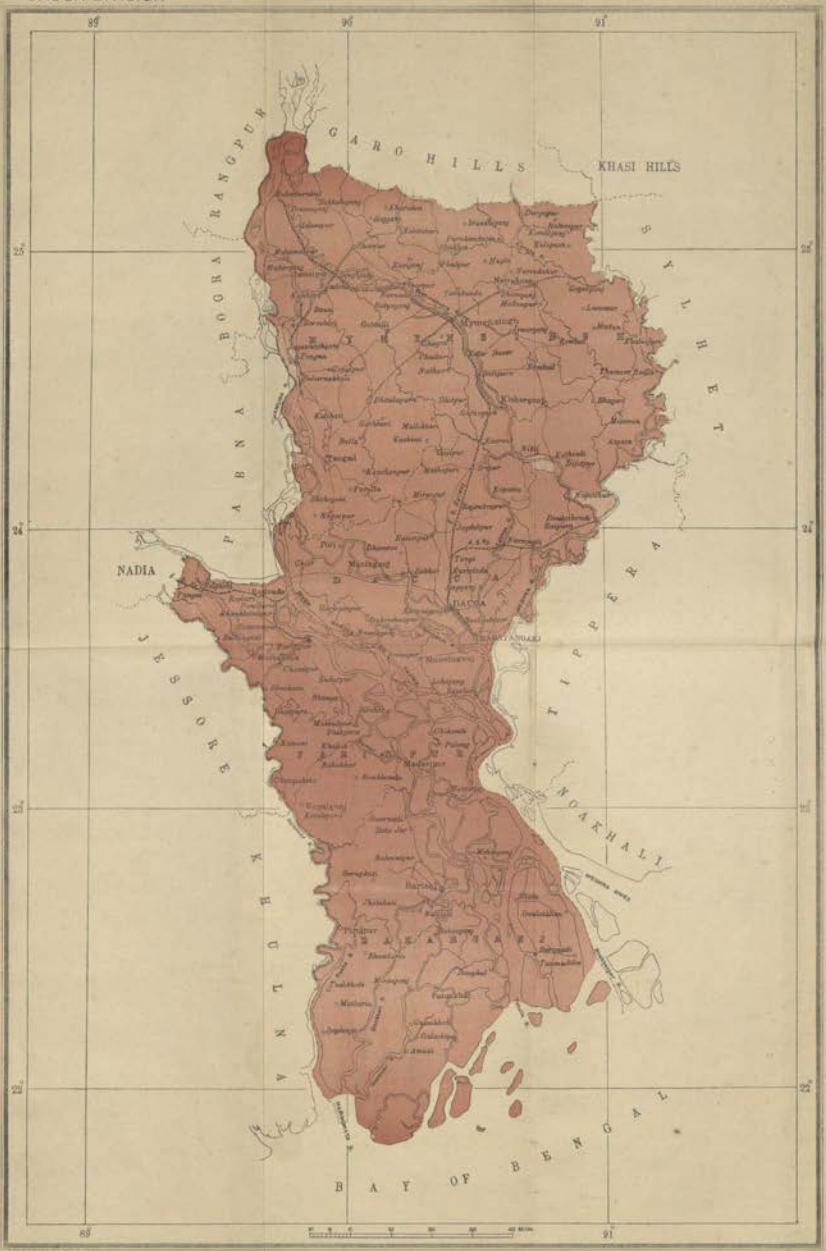
- Previously Finally Published
- Draft Published up to 1917-18
- Khanapuried in 1917-18
- Traversed in 1917-18
- Previously Traversed
- Traversed in 1914-15 & Relaid in 1916-18

PROGRESS OF MAJOR SETTLEMENT WORK

TO 30th SEPTEMBER 1918.

DACCA DIVISION

Scale 1/633,600



REFERENCES

Previously Finally Published

Finally Published in 1917–18

PROGRESS OF MAJOR SETTLEMENT WORK

CHITTAGONG DIVISION

TO 30th SEPTEMBER 1918

Scale 1 000 000

D. O. Bengal R. S. No. 1109

REFERENCES

Previously Finally Published ...

Finally Published in 1917–18 ...

Draft Published in 1917–18 ...

Khanapuried in 1917–18 ...

PROGRESS OF MAJOR SETTLEMENT WORK.

TO 30th SEPTEMBER 1918.

RAJSHAHI DIVISION.

Scale 4 MILES.

REFERENCES.

- Previously Finally Published.
- Finally Published in 1917–18.
- Draft Published up to 1917–18.
- Previously Traversed ...

ANNUAL REPORT

ON THE

SURVEY OPERATIONS IN BENGAL

(OTHER THAN CADASTRAL SURVEYS)

DURING THE YEAR

1918-19.

CALCUTTA:
BENGAL SECRETARIAT BOOK DEPOT.
1920.

No. 3864.

FROM MAJOR F. C. HIRST, I.A.,
Director of Surveys, Bengal,

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,
REVENUE DEPARTMENT.

Dated Calcutta, the 22nd December 1919.

SIR,

I HAVE the honour to submit herewith my report for the Survey year ending the 30th September 1919. Mr. C. A. O'Donel acted for me during my absence as a volunteer on military duty until I returned on the 31st March 1919.

2. The main traverse programme was —

	Square miles.	Cost-rate per square mile.
		Rs.
Uplands.		
Jessore	649	70
Bankura	777	67
Nadia	914	47
River areas.		
Bhagirathi ... ... } Diara in Nadia and adjoining districts ... }	271	47
Total ...	2,611	

A normal programme should be about 3,600 to 4,000 square miles of traverse. The deficit, of course, is due to curtailed programmes because of the war. For this reason mainly cost rates are high.

3. Paragraph 213 on page 53 of the Survey and Settlement Manual of 1917 lays down that village trijunctions will be demarcated ahead of traverse operations by District Magistrates. Unless this rule is acted upon the traverse operations are seriously delayed and complications and cost rates raised; unnecessary cost also occurs during the cadastral stage. District Officers have been specially urged to carry out the preliminary demarcation in the coming season's work, but during the year reported upon, except perhaps in the uplands area traversed in Nadia, the operations were greatly hampered by defective demarcation. A second point upon which District Officers could help my Department is in the early issue of demarcation notices under the Survey Act. In the year under report these were not always issued as quickly as they might have been.

4. The question of some form of recess out of the plains for the few European Officers there are in the Department is one which I am about to raise. During the year the health of the five Officers in the Department with one exception has been bad. Mr. O'Donel was compelled to take a short-sea trip; Messrs. Judd and Newton were both compelled to take leave, and Mr. Delaney has been in indifferent health all along. I found it necessary to remain on tour practically through the hot weather and rains, although entitled to visit the hills.

The fact is that although a report of this nature does not show it, the uses to which the Department is put by the public and the administration generally, in miscellaneous matters, has increased greatly in the last few years ; and unless a good climate can be ensured for a part of the year, there must always be danger of collapse, which there is little margin to meet.

I cannot speak too highly of the way in which my officers have stuck to their work, and am sure that Government will consider the question of relaxation or relief favourably.

5. During the rains I inspected the five survey schools in the Province, and my report upon them is in the Press. There is still a good deal of spade work to be done before it can be said that land surveying education in Bengal is properly on its feet. But it is satisfactory to note that progress is being made, and that the market for properly qualified surveyors is expanding. The inspection of these schools is a matter which should be looked upon as one of the more important minor duties of the Director of Surveys.

6. During the year I was asked to advice upon the methods to be used in the Mesopotamian revenue surveys. Such advice as I was capable of giving has been given, and various books and pamphlets have been supplied to help the Mesopotamian authorities. The Revenue Secretary of that Province has been kind enough to acknowledge the help given.

7. Proposals for revising the pay of the whole Department have been sent to Government towards the end of the year. These are under consideration.

8. A re-settlement of the Kalimpong Government Estate being due, Mr. Ascoli, I.C.S., and I visited Kalimpong in June, and decided that it should be possible to revise the maps of the last settlement and so save the expense of a new traverse and cadastral survey. It has been decided to adopt revision.

The whole case of the Darjeeling district maps has been considered during the year; from the peculiar physical nature of this district patch work surveys in the past have been all that could be afforded in the Darjeeling and Kalimpong Sub-Divisions. The Deputy Commissioner has asked for a cadastral survey of the whole district, and I have compiled a history of all the professional surveys of the district since its formation. The question of how far a cadastral survey can be dispensed with is at present under consideration by the Director of Land Records, the Deputy Commissioner and me. It is quite clear that the existing maps are unsatisfactory from the point of view of district administration.

9. I visited all major settlements at least once during the year, examining the field cadastral work in Nadia and Bankura ; the former in the diara area, and the latter between Asansole and Raniganj. The work was good. The Bankura area was particularly difficult.

10. During my absence I consider that too little touring has been done by at least one Officer of the Department. I have taken steps to remedy this defect.

Bengal Traverse Party.

Imperial Operations.

11. Mr. O. E. C. Judd held charge until 31st March 1919, when Mr. C. A. O'Donel relieved him.

12. **District Bankura.**—In this district the following areas were traversed :—

		Square miles.
(*i*)	Thana Gangajalghati (portion only)	293
(*ii*)	„ Bankura (portion only)	156
(*iii*)	„ Onda	328
	Total ...	777

This area is undulating and is covered in many places with extensive patches of low jungle. The cultivated areas, with their very irregular terraced fields, will be difficult for cadastral survey. A few sub-traverses remain to be run early next season. These are due to initial defective demarcation.

13. **District Nadia.**—The following areas were traversed :—

UPLANDS.

		Square miles.
(*i*)	Thana Tehatta	186
(*ii*)	„ Meherpur	132
(*iii*)	„ Chapra	128
(*iv*)	„ Damurhuda	118
(*v*)	„ Krishnaganj	161
(*vi*)	„ Chuadanga	112
(*vii*)	„ Jibannagar	77
	Total ...	914

BHAGIRATHI RIVER.

Diara Areas.

(*viii*)	Riverain areas of Nadia district including portions of the Hooghly, Burdwan and Murshidabad districts	271
	Grand Total ...	1,185

The diara areas include portions of other districts which cannot be separated in area until after the cadastral survey is completed by the Director of Land Records.

14. **District Jessore.**—The following areas were traversed :—

		Square miles.
(*i*)	Thana Maheshpur	197
(*ii*)	„ Bongaon	227
(*iii*)	„ Gaihatta	95
(*iv*)	„ Sarsa	130
	Total ...	649

The cadastral programme for next season will be 147 square miles (thana Kaliganj) in excess of this area, as that area was previously traversed but omitted from cadastral survey operations of the current year.

I fear that the Settlement Officer will need a great deal of help in extra traverses next field season as many village boundaries as traversed diverge seriously from the original revenue survey boundaries. The disagreement is due to lack of initial demarcation of village trijunctions, and the water-logged nature of this area.

4″ Plots for Jurisdiction Maps.

15. (*a*) *Districts Noakhali and Tippera.*—These including the Chakla Roshnabad Estate by the old survey have been completed.

(*b*) *Rajshahi District* (*Diara*).—This area has been completed except for a few sheets of adjacent district diaras included in the Rajshahi main block of riverain lands.

(*c*) *Districts Jessore and Nadia.*—This work is rather behind hand, but steps have been taken to bring it up to date without undue delay.

(*d*) *Districts Bankura and Burdwan.*—The plots of five thanas have been sent to the Settlement Officer, and the remaining thanas of the first two survey blocks are in hand.

4" Plotting for Comparative Maps in Diara Areas.

16. (*i*) *Jessore District.*—Plots on 23 sheets of the Madhumati river have been sent to the Settlement Officer, who will transfer his cadastral boundaries to them.

(*ii*) *Nadia and adjoining Districts.*—The plots have been sent to the Settlement Officer, and six sheets have been received back with cadastral boundaries shown on them.

(*iii*) *Rajshahi and adjoining Districts.*—These have been completed and sent to the Settlement Officer for the second phase of the work. He has returned four sheets of an area adjoining the Sonthal Parganas for further details, which are being compiled, but which present peculiar difficulties which will probably necessitate asking the Settlement Officer to visit Calcutta.

(*iv*) *Mymensingh District.*—Comparative maps on 12 sheets of the Dhanu river area in thanas Kendua, Netrakona, Kishoreganj and Bajitpur have been sent to the Settlement Officer at his request.

Miscellaneous Survey Work.

17. **Howrah Municipality.**—The remaining 216 sheets of circles 12 to 24 with area statements and municipal registers were sent to the Municipal Office for public inspection under section 20 of Act I of 1887. These have since been returned with 352 objections raised by the parties concerned. These are gradually being disposed of.

Of the total 341 fifty-foot sheets covering the Municipality 236 have been sent for final printing; 108 sheets have been printed and returned to this office and six colour copies of each of 102 sheets have been prepared.

The total expenditure incurred to the end of September 1919 is Rs. 2,03,520.

18. **Revision of the Calcutta Added area.**—No further work was done in this area during the year. The question of a resurvey and maintenance is still under consideration.

19. **Other miscellaneous work** :—(*a*) *Demarcation of a portion of the boundary of the Chittagong Hill Tracts.*—The demarcation along 3½ miles of the boundary adjoining the Lushai Hills District was completed. It was found impossible to carry out the demarcation of the boundary adjoining the Hill Tippera State, as no arrangements could be made for the carriage of food supplies to the area.

(*b*) *Traverse of Kalimpong and Bong Blocks.*—An area of 7·53 square miles was traversed, but the plots of an area of only 75 acres covering the Kalimpong bazar are required as the remaining. area has now been included in the Revision Survey and Re-Settlement of the remainder of the Kalimpong Government Estate. The bazar area will be surveyed on the 64" scale by this Department early in season 1919-20.

(*c*) *Nepal-Darjeeling boundary.*—The checking of the positions of some additional pillars erected by the Deputy Commissioner between pillars 21 to 26 of the boundary was taken in hand. The work could not be completed as certain discrepancies were detected between the traverse records of 1914-15 and those of 1918-19 and the old maps. These discrepancies will be adjusted early in November next.

(*d*) *Preparation of 4" comparative maps of the boundary between Jalpaiguri District and Cooch Behar State.*—The comparative maps were completed, and the final adjustment of the boundary will be carried out next season by a Boundary Commission.

(*e*) *4" comparative maps of the boundary between Cooch Behar and Goalpara Districts.*—The comparative maps were completed, and the final adjustment of the boundary will be done by a Boundary Commission during 1919-20.

(*f*) *Bhutan-Jalpaiguri boundary between pillars Nos. 114 and 116.*—A new alignment of the boundary between these pillars has been proposed, and I visited the area in May 1919 with the Bhutan Boundary Commissioner to arrange preliminary matters.

(*g*) *Relaying of the boundary between Mauza Gobindpur and adjoining Mauzas in District Dinajpur.*—Comparative maps were completed in 1917-18. A report has been sent to the Civil Court concerned, and if more work is needed it will be done next year.

(*h*) *Relaying of the boundary between the Chanchal and Churaman Wards' Estate, District Malda.*—The traverse and comparative mapping have been completed, and the boundaries will be demarcated on receipt of information from the Collector, to whom the maps are being sent.

(*i*) *Relaying of the boundary between Mauzas Radha Ballavpur and Dabra in Thana Asansol, District Burdwan.*—Comparative maps were prepared and copies sent to the Sub-Judge of Burdwan in 1917-18. No demarcation or relaying of this boundary has yet been called for.

(*j*) *Relaying Tauzi No. 33 in Mauzas Alipur and Radhanagar.*—A comparative map was prepared and a copy sent to the Collector of 24-Parganas for a local investigation.

(*k*) *Preparation of 4" comparative maps of certain Mauzas in Thanas Mehendiganj and Bhola for the Collector of Bakarganj.*—The comparative maps for 18 Mauzas falling in Thanas Mehendiganj and Bhola which were required by the Collector were completed and copies sent to him.

(*l*) *Demarcation of the Nadia rivers.*—This work was started in August and part of the demarcation along the Bhagirathi river was completed. The demarcation along this river should be completed early in December 1919. This work is in connection with recent proposals for watching the Nadia rivers and their effect upon the fresh water-supply of the Hooghly river.

(*m*) In addition to the above a great deal of work in the nature of giving advice to District Officers and others was done in this Party, conjointly with my own office. Much of this work is both heavy and tedious, but it is apparently of use to the administration generally and so is welcome. It is impossible in this Report to refer in detail to the many different cases dealt with.

Drawing Office, Bengal.

20. Mr. P. F. Delaney held charge throughout the year.

21. **Reproduction Section.**—The machinery of this Section is in rather a bad way owing to the war, but arrangements are being made for renovation and necessary additions of plant.

The total output is 832,126 copies of maps, of which 115,575 were printed in the Surveyor-General's office. This outturn is greatly in defect of that of the previous year, and is partly due to bad equipment, partly to smaller orders, and partly to time lost in colour printing.

Detailed figures of outturn are given in Appendix III of this Report.

22. **Record Section.**—During the year 5,870 original cadastral maps were received, bringing the total of these maps in this Section to 77,606.

23. **Drawing Section.**—This Section has been employed upon the following types of work :—

(*i*) *1" final police-station maps.*—In this work an experiment is being made to modify the system used and so to increase the output. The experiment is not yet complete. Progress generally has been slow and is now being expedited. Much delay occurs owing to the frequent changes in boundary that are notified after the map production process is far advanced.

(*ii*) *4" jurisdiction mapping.*

(*iii*) *1" Chandra's mujmilis.*

(*iv*) *1" "not final" thana mujmilis for Settlement Officers.*

(*v*) *¼" district mapping.*

The outturns for this section are given in Appendix III of this Report.

24. **Map Issue and Copying Section.**—For the public and Government officials 950 applications for copies of maps were dealt with during the year. In addition 3,762 printed copies of maps were supplied to applicants.

This is a considerable increase over last year, but is only a portion of the work that this Section will have to do as soon as it is established at Alipore and becomes better known.

Bengal Land Surveying School.

25. The school was in charge of Mr. Rajendra Lal Banerji throughout the year.

26. The statement below shows the first and second-year students who attended the school during the year :—

	Number admitted.		Total.
	Hindus.	Muhammadans.	
First Year	21	8	29
Second Year	19	3	22

The examination results are not yet published.

Of the 22 second-year students the following were admitted under the new scheme sanctioned in Bengal Government letter No. 501, dated the 12th March 1917, from outside schools :—

Dacca	9
Rangpur	1
Pabna	0
Rampur Boalia	2

The balance were first-year students of the Comilla school. The general English education qualification of youths from outside schools was very low indeed, and this will probably result in bad results in the final examination. The question of revising the present procedure is referred to in my Special Report referred to in paragraph 5 of this Report. Here it will suffice to say that until the existing system is changed, land surveying education in Bengal will not be placed upon a satisfactory basis. That great progress has been made since the establishment of the Comilla school cannot be contradicted, but to me it is disappointing that this type of education should still be as backward as it is. That it is backward, however, is due more to misunderstanding elsewhere than to lack of effort in this Department.

Training of District and candidate Kanungos.

27. No district kanungos were sent for training during the year. Three candidate kanungos were trained, and they worked satisfactorily and all passed the tests imposed. Government issued orders in letter No. 1314-18 T. R., dated the 29th June 1916, regarding the training of kanungos. I am about to draw the attention of Government to the fact that the school can take many more of this type of student than are sent to it.

28. Plans have been made to give extra training at Comilla to the staffs of the other schools of the Province, where such training is needed.

29. The school buildings require rebuilding, and plans are under preparation for permanent buildings.

30. Health has been generally good at the school. It seems clear that the steady removal of scrub jungle has improved health greatly. Where mosquitos swarmed almost always, few are now seen except for two to three months each year.

Imperial Standard Mapping Section.

31. Mr. P. Simpson, Extra Assistant Superintendent, Survey of India, held charge of the Section throughout the year.

32. The Section has been employed during the year under report on the compilation and fair mapping of 2″ and 1½″ originals for reduction to the 1″ scale, as well as insertion of hills and the completion to margins of such sheets incompletely published previously in these respects. Such sheets are usually completed from existing old material, especially in the case of the hills, but whenever cadastral or other data is forthcoming it is utilized.

The 2″ originals are mostly compiled from the 16″ Cadastral Village Surveys of Bengal and Bihar and Orissa, reduced by pentagraph to the scale of drawing; whereas for the 1½″ sheets, the 4″ local series of maps is

utilised, and pasted on their respective projected sheets; these are reduced by photography to the scale of drawing, and fair mapping is executed on blue prints on drawing paper supplied by the Photo-Litho office.

The Section also undertook the compilation of the Calcutta-Howrah Town Guide Map in 16 sheets, on the 24″ and 16″ scales, for final reduction to the 12″ scale. The Howrah area was drawn *de novo* from the 50 feet Howrah survey maps, and the Calcutta portion completed from existing 16″ sheets of the Bengal Survey Department; all the names were retyped, and as much information as was obtainable from outside sources was incorporated to bring these maps up to date.

The normal outturn of 1″ sheets was effected through this new work.

33. **Outturn.**—Twelve standard sheets (three 2″ and nine 1½″), together with the area of Bengal falling in sheet No. $73\frac{O}{6}$, were submitted to the Superintendent of Map Publication for publication.

The sheets relate to the districts of Mymensingh, Midnapore and Dacca.

34. The absence of many draftsmen on medical leave owing to the influenza epidemic has affected on the outturn of the Section.

Tours and services of Officers.

35. Mr. O'Donel was on tour for 24 days whilst he acted for me. Between 31st March 1919 and the close of the year I was on tour for 103 days. The touring of other Officers was not always sufficient, and steps have been taken to remedy this defect.

36. I beg to bring to the notice of Government the services of the following officers :—

Mr. C. A. O'Donel, of whose services I cannot speak too highly.

Mr. O. E. C. Judd, who has worked very industrially.

Mr. P. F. Delaney, who has carried out arduous work in the face of great difficulties and hampered by ill-health.

Mr. Rajendra Lal Banerji, who has done unusually good work in the Comilla Survey School.

The services of Mr. P. Simpson in charge of the Standard Mapping Section for Bihar and Orissa and Bengal have been brought specially to the notice of the Surveyor-General in India.

The services of my Personal Assistant Rao Sahib Damodar Rao Dhulekar are hard to recognise adequately. His exceptional abilities and capacity for work are already known to Government.

The remainder of the staff has worked well and loyally in the face of short-handedness due to the war, severe suffering from the influenza epidemic, tension caused by the high prices of food and clothing, and the extraordinary inflation in rents which Calcutta is suffering from. For the majority of the staff the year has been unusually difficult, and one can but hope that better times, which are thoroughly deserved, are in store for it.

37. Mr. O'Donel and I take this opportunity of thanking the Director of Land Records and his Officers for the courtsey they have extended to an allied Department during the year. Our relations could not be more cordial than they are.

I have the honour to be,

SIR,

Your most obedient servant,

F. C. HIRST, MAJOR, I.A.,

Director of Surveys, Bengal.

APPENDIX I--PART A.

Statement Showing particulars of each Survey Operation undertaken by Bengal Traverse Party during the year ending 30th September 1919.

DESCRIPTION OF WORK.	Geographical limit of work.	Origin used.	Number of villages.	Lineal miles of chaining.	Number of new theodolite stations.	Number of azimuths observed.	Number of azimuths used.	Number of sub-traverses.	Number of village circuits.	Number of sub-circuits.	Number of pargas.	Number of main circuits.	MARKS USED (NUMBER).							AREA OF EACH THANA IN SQUARE MILES.			
													Old stones or pillars.	Trijunction marks, Burn & Co.'s cylinders	Galvanized cylinders.	Country stones.	Iron pegs.	Pegs.	Total number of stations at which theodolite was set up.	Kaliganj.	Maheshpur.	Bangaon.	Gaighata.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Jessore Upland Traverse	Lat. 22° 52′ 25″ to 23° 26′ 00.″ Long. 88° 40′ 00″ to 89° 02′ 00.″	Lat. 23° 30′ 00″ Long. 89° 30′ 00″	763	3,232	16,567	77	65	1,290	763	20	15	3	33	1,515	246	...	...	14,773	20,673	...	197·18	226·96	94·84
Kalimpong—Bong Blocks, District Darjeeling.	Lat. 27° 02′ 00″ to 27° 05′ 00.″ Long. 88° 26′ 00″ to 88° 30′ 00.″	Lat. 27° 02′ 13·51″ Long. 88° 27′ 49 53″	3	66·31	559	7	5	37	3	...	...	...	Old stone 36	Chatan 83	Survey stone 80	Country stones 162	...	Peg 198	638	Kalimpong 4·56	Bong 2·84	Bhulukhap Kalimpong Bazar. 0·13	...
District Bankura Upland Traverse (Major Operation).	Lat. 22° 54′ 00″ to 23° 31′ 30.″ Long. 86° 55′ 00″ to 87° 24′ 40.″	Lat. 23° 00′ 00″ Long. 87° 30′ 00″	1,241	3,340	18,853	101	87	1,181	1,241	31	23	3	151	2,185	324	5,243	...	10,950	23,701	...	...	...	...
District Nadia Upland	Lat. 23° 16′ 40″ to 23° 53′ 00.″ Long. 88° 17′ 40″ to 89° 00′ 20.″	Lat. 23° 30′ 00″ Long. 89° 30′ 00″	688	4,057	20,475	147	138	1,413	88	38	33	7	22	1,307	169	4	...	18,973	24,819	Tehatta 186	Meherpur 132	Chapra 128	Damurhuda 118
District Nadia Diara ...	Lat. 22° 54′ 20″ to 23° 48′ 50.″ Long. 88° 06′ 40″ to 88° 32′ 00″.	Lat. 23°30′ 00″ Long. 89° 30′ 00″	301	1,240	7,563	52	49	512	301	18	1	2	113	491	284	...	...	6,675	9,227	...	...	...	...

APPENDIX I—PART A.

Statement showing particulars of each Survey Operations undertaken by Bengal Traverse Party during the year ending 30th September 1919.

DESCRIPTION OF WORK.	AREA OF EACH THANA IN SQUARE MILES.					Total area dealt with in square miles.	Area for cadastral same season in square miles.	Area for traverse next season in square miles.	Number of 16″ sheets.	Number of 32″ sheets.	Number of 64″ sheets.	Number of 4″ sheets.	Number of G. T. connections.	Average error in feet per mile.	Demarcations by inhabitants (good or bad).	Traverse data copied for Settlement Officer	Maps used to guide surveyor.	Health of establishment.	Work started on.	Work completed on.	REMARKS.
	Sarsha.	Gangajalghati partly.	Bankura partly.	Onda.																	
	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Jessore Upland Traverse	130·01	...	...	...	...	648·99	...	661	1,427	...	...	...	6 (*d*)	7·05	Nil	Will be ready by 15th November 1919.	R. S maps of season 1855-59.	Bad ...	12-11-1918	31-5-1919	Longitudinal correction 2′ 27″ 18 has been applied.
Kalimpong—Bong Blocks, District Darjeeling.	...	...	...	...	...	7·53	...	...	...	...	4	...	1 (*c*)		.....	.....	1″ standard maps of season 1861 to 67 & 1880-81.	Good ...	16-11-1918	16-4-1919	Ditto.
District Bankura Upland Traverse (Major operation).	...	293	156	328	...	777	...	699	1,699	12	...	...	1 (*b*)	1·39	Nil	Will be ready by 15th November 1919.	R. S. maps of season 1854-55	Do. ...	6-11-1918	20-6-1919	Ditto.
District Nadia Upland ...	Krishnaganj 161	Jibannagar 77	Chuadanga 112	...	...	914	...	848	1,609	...	...	...	3 (*a*)	10·54	Fair	Supplied ...	4″ R. S. maps of season 1849-55.	Bad ...	4-11-1918	16-6-1919	Ditto.
District Nadia Diara ...	...	..	...	...	...	271	271	...	647	8	...	...	...	...	Nil	Do. ...	4″ R. S. maps of season 1848-57 & 1869-72.	Fair ...	4-11-1918	30-3-1919	Ditto.

(*d*) The following G. T. stations have been connected in district Jessore in season 1918-19 :—Berghom IV, Kanakpur V, Norada VI, Ghiba VII, Pipragachi VIII, and Simlia IX, of East Calcutta Longitudinal series.
(*c*) The work of district Darjeeling was connected with Deolo h.-s. Plots for Bong and Kalimpong have not been prepared.
(*b*) The Kola h.-s. has been connected in district Bankura in season 1918-19 of Calcutta Longitudinal series.
(*a*) Gobindapur T. S. XI. Kistonagar T. S. XII, Teraghari T- S. XIII of Calcutta Meridional series.

APPENDIX I—Part B.

Statement of outturn and cost rates for the year ending the 30th September 1919.

District and Tract.	Description of work.	Estimated area in square miles to be dealt with.	Year of inception of operation.	Area surveyed in square miles.		Cost rate per square mile.		Balance of area in square miles remain for survey.	Estimated cost completing area in column 9.	Estimated final cost rate per square mile.
				During the year under report.	Total including previous year.	During the year under report.	From commencement to end of the year under report.			
1	2	3	4	5	6	7	8	9	10	11
									Rs.	Rs.
Jessore	Traverse ...	2,900	1914	649	2,239	70·7	74·1	661	47,000	72
Kalimpong—Bong Blocks, District Darjeeling.	Do. ...	...	1918	7·53	7·53	278	27·8	...	...	278
Bankura	Do. ...	2,621	1914	777	1,921	67·4	89·4	700	62,300	89
Nadia upland	Do.	2,900	1917	914	2,052	47·2	48	848	40,700	48
Nadia Diara	Do. ...	...	...	274	274					

Including 152 square miles area traversed of Rajshahi Diara and 37d of the Nadia Diara.

APPENDIX II.

Statement of sums expended during the year ending 30th September 1919.

District and Tract.	Description of work.	Expenditure incurred during the year under report.				Total expenditure from inception to end of the year under report.			
		Direct charge including share of general section, if any.	Share of control.	All indirect charges other than share of control.	Total.	Direct charge including share of general section, if any.	Share of control.	All indirect charges other than share of control.	Total.
1	2	3	4	5	6	7	8	9	10
District Operations.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bogra-Pabna	Traverse	136	25	9	170	136	25	9	170
Bankura-Burdwan	Ditto	41,815	7,621	2,946	52,382	1,37,576	24,804	9,367	1,71,747
Ditto —Comparative mapping of Diara areas	Mapping	173	33	12	218	173	33	12	218
Ditto —4″ Jurisdiction mapping	Ditto	685	123	46	854	685	123	46	854
Ditto —Reproduction of 16″ maps	Ditto	218	40	264	522	248	46	288	582
Jessore	Traverse	36,647	6,676	2,585	45,910	1,27,615	22,714	8,957	1,59,286
Do. —Comparative mapping of diara areas ...	Mapping	80	14	5	99	80	14	5	99
Do. —4″ Jurisdiction mapping	Ditto	20	3	2	25	20	3	2	25
Do. —Reproduction of maps	Ditto	245	43	304	592	266	47	321	634
Nadia	Traverse	44,740	8,147	3,155	56,042	72,797	13,484	5,037	91,318
Do. —Comparative mapping of diara areas ...	Mapping	74	13	5	89	71	13	5	89
Do. —4″ Jurisdiction mapping	Ditto	122	22	9	153	122	22	9	153
Do. —Reproduction of maps	Ditto	293	53	362	708	306	55	373	733
Noakhali-Tippera	Traverse	42	7	3	52	1,55,461	2,202	11,681	1,74,044
Ditto —4″ Jurisdiction mapping	Mapping	262	47	48	327	6,442	306	126	1,874
Ditto —Reproduction of maps	Ditto	20,926	3,807	25,618	50,351	31,978	6,031	34,770	72,779
Rajshahi—Diara comparative mapping	Ditto	30	5	2	37	3,434	728	256	4,418
Ditto —4″ Jurisdiction mapping	Ditto	1,421	259	98	1,778	1,437	262	98	1,797
Ditto —Reproduction of maps	Ditto	12,260	2,232	15,015	29,507	Not available.			
Nadia—River demarcation	Demarcation	732	132	52	916	732	132	52	916
Mymensingh—Comparative mapping of diara areas.	Mapping	448	81	31	560	Not available.			
Ditto —Reproduction of maps	Ditto	1,624	295	1,996	3,915	Ditto.			
Midnapore—Reproduction of maps	Ditto	5,011	912	6,130	12,053	Ditto.			
Total district operations ...	.....	1,68,001	30,592	58,667	2,57,260	...	...	...	...
Minor Operations.									
Survey of 6 blocks in Kalimpong, district Darjeeling.	Traverse	1,753	319	16	2,088	1,753	319	16	2,088
Comparative mapping of Jalpaiguri-Cooch Behar boundary.	Mapping	1,771	322	16	2,109	1,771	322	16	2,109
Demarcation of boundary between Hill Tipperah and Lushai Hills, district Chittagong Hill Tracts.	Demarcation	2,923	532	27	3,482	2,923	532	27	3,482
Comparative mapping of certain mauzas in thana Menhdiganj Bhoia, district Bakarganj.	Mapping	373	108	3	484	373	108	3	484
Demarcation of boundary between Nepal and Darjeeling along Hill Ridge, district Darjeeling.	Demarcation	1,505	274	13	1,792	1,505	274	13	1,792
Survey of Chanchal-Churaman Wards' Estate in district Malda.	Traverse	1,020	187	72	1,279	1,020	187	72	1,279
Howrah Town Survey	Traverse and detail ...	6,887	1,255	481	8,647	1,63,627	31,028	8,865	2,03,520
Relaying of boundary of certain disputed land in connection with title suit No. 41 of 1913 for Sub-Judge, Dinajpur.	Relaying	18	3	1	22	18	3	1	22
Demarcation of land of estate No. 33 in mauza Radhanagar Alipore for Maharajdhiraj of Burdwan.	Demarcation	220	40	16	276	292	57	22	371
Reproduction of 2″ stone mujmillis of certain thanas in district Faridpur for Collecter of Faridpur.	Reproduction of maps	21	3	27	51	21	3	27	51
Reproduction of 16″ cadastral maps of certain villages in district Faridpur for sale.	Ditto	80	14	95	189	80	14	95	189
Reproduction of conventional signs of 16″ cadastral maps for Sub-Deputy Collector, Mainaguri, district Jalpaiguri.	Ditto	2	...	2	4	2	...	2	4
Reproduction of 4″ maps of district Midnapur ...	Reproduction of maps	1,342	244	1,655	3,241	...	Not available		...
Ditto ditto Mymensingh	Ditto ...	1,685	306	2,060	4,051	...	Ditto		...
Carried over ...	.....	...	...	...	...	...	...	...	...

APPENDIX II—*concld.*

Statement of sums expended during the year ending 30th September 1919—*concld.*

District and Tract.	Description of work.	Expenditure incurred during the year under report.				Total expenditure from inception to end of the year under report.			
		Direct charge including share of general section if any.	Share of control.	All indirect charges other than share of control.	Total.	Direct charge including share of general section, if any.	Share of control.	All indirect charges other than share of control.	Total.
1	2	3	4	5	6	7	8	9	10
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Brought forward ...	.....	...	...	...	...	...	...	...	...
Minor Operations—concluded.									
Reproduction of 4″ maps of district Dacca ...	Reproduction of maps	1,238	228	1,509	2,975	...	Not available		...
Ditto ditto Jalpaiguri ...	Ditto ...	1,567	287	1,913	3,767	...	Ditto		...
Ditto ditto Noakhali ...	Ditto ...	84	15	92	191	...	Ditto		...
Ditto ditto Rajshahi ...	Ditto ...	143	27	176	346	...	Ditto		...
Reproduction of 16″ cadastral maps of certain villages in Backarganj for sale.	Ditto ...	273	50	336	659	273	50	336	659
Ditto of Departmental	Ditto ...	152	28	182	362	249	47	272	568
Ditto village maps of Estate Sagore Island, 3rd portion, district 24-Parganas.	Ditto ...	5	1	6	12	5	1	6	12
Reproduction of 4″=1 mile map of mauza Dandra, district Noakhali, for insertion in Final Report.	Ditto ...	6	1	6	13	6	1	6	13
Reproduction of 1″=20 feet map of Akra-Matiaburz Road for Public Works Department, district 24-Parganas.	Ditto ...	15	2	16	33	15	2	16	33
Reproduction of 16″ maps of Cooch Behar State.	Ditto ...	1,956	356	2,394	4,706	8,443	1,594	8,479	18,516
Reproduction of 50′ Revenue Survey map of Panchanagram Estate within Cossipur-Chitpur Municipality.	Ditto ...	99	18	121	238	99	18	121	238
Reproduction of Survey and Settlement maps of Estates Gopalpur and Sambalpur bearing tauzi Nos. 511 and 190 of Dinajpur Collectorate for Collector of Dinajpur.	Ditto ...	73	14	90	177	73	14	90	177
Reproduction of 50′=1 mile map of Howrah Municipality.	Ditto ...	282	51	339	672	290	53	346	689
Reproduction of 50′ maps of Revenue Survey of Maniktala for sale.	Ditto ...	126	24	150	300	126	24	150	300
Reproduction of 2″ stone mujmillies of certain thanas in district Faridpur for verification of boundary marks.	Ditto ...	120	23	147	290	120	23	147	290
Reproduction of 5 divisional maps in Bengal for insertion in Survey and Settlement Annual Report for 1917-18.	Ditto ...	268	50	330	648	268	50	330	648
Reproduction of 1″ Final Police Station maps of Backerganj.	Ditto ...	19	5	12	36	...	Not available		..
Reproduction of 4″ district maps	Ditto ...	549	100	666	1,315	...	Ditto		...
Ditto 50′ maps of Calcutta for sale ...	Ditto ...	42	9	52	103	...	Ditto		...
Ditto maps for jurisdiction mapping rules.	Ditto ...	9	3	11	23	9	3	11	23
Reproduction of 6 traces of pargana Denhata of Cooch Behar State.	Ditto ...	20	5	25	50	20	5	25	50
Reproduction of 16″ maps of district Hooghly ...	Ditto ...	23	5	26	54	37	8	38	83
Ditto 16″ maps of certain villages in Howrah.	Ditto ...	20	5	25	50	20	5	25	50
Reproduction of 1″ "not final" maps of Midnapur.	Ditto ...	46	10	52	108	...	Not available		...
Reproduction of 1″ "not final" maps of Mymensingh.	Ditto ...	139	26	170	335	...	Ditto		...
Reproduction of 1″ "not final" maps of Rajshahi.	Ditto ...	68	13	70	151	...	Ditto		...
Reproduction of 1″ final map of Bakarganj ...	Ditto ...	26	5	30	61	...	Ditto		...
Ditto ditto Darjeeling ...	Ditto ...	280	51	324	655	..	Ditto		...
Drawing section of Bengal Drawing office... ...	.....	15,166	2,762	166	18,094	93,852	17,841	1,585	1,13,278
Record section of ditto	Ditto ...	5,920	1,077	62	7,059	58,325	11,697	786	70,808
Map issue and copying section of Bengal Drawing office.	Ditto ...	7,602	1,384	124	9,110	30,179	6,373	468	37,025
Imperial standard mapping section (provincial share).	Ditto ...	3,754	...	...	3,754	31,278	...	...	31,278
Comilla Survey School in district Tipperah ...	Ditto ...	12,498	...	...	12,498	1,12,358	...	285	1,12,643
Total Minor operations ...	.....	72,182	10,242	14,106	96,530	...	...	...	...
Total District operations ...	.....	1,68,001	30,592	58,667	2,57,260	...	...	...	...
GRAND TOTAL ...	.....	2,40,183	40,834	72,773	3,53,790	...	...	...	...

APPEN

Bengal Drawing

For the year endin g

REPRODUCTION

MAPS OF DISTRICTS, ETC.	VILLAGE MAPS.							Miscellaneous		
	Previously supplied.		Supplied during the year.		Total to date.		Complete or incomplete.			
	Sheet or map.	Copies.	Sheet or map.	Copies.	Sheet or map.	Copies.		Previously supplied.	Supplied during the year.	Total to date.
1	2	3	4	5	6	7	8	9	10	11
BENGAL.										—
Bakarganj	1,351	94,468	393	3,930	1,744	98,398	Incomplete	2,202	...	2,202
Bankura	...	...	...	...	...	...	...	262	640	902
Birbhum	229	30,388	...	...	229	30,388	Complete ...	...	...	...
Bogra	9	400	...	...	9	400	...	29	...	29
Burdwan	146	4,627	...	...	146	4,627	Incomplete	474	...	474
Calcutta	...	...	...	...	...	...	...	52,037	3,600	55,637
Chittagong	9,466	64,488	...	...	9,464	64,488	Incomplete	1,594	...	1,594
Dacca	7,946	1,105,253	...	...	7,946	1,105,253	Complete ...	9,595	...	9,595
Darjeeling	...	...	...	...	...	...	...	1,800	1,278	3,078
Dinajpur	59	5,465	8	840	67	6,305	Complete ...	195	...	195
Faridpur	7,227	687,408	6	925	7,233	688,333	Ditto ...	939	4,050	4,989
Hooghly	172	9,127	...	...	172	9,127	Ditto ...	...	...	...
Howrah	5	200	12	425	17	625	...	1,152	...	1,152
Jalpaiguri	3,118	233,978	...	...	3,118	233,978	...	7,639	...	7,639
Jessore	41	4,300	...	...	41	4,300	...	732	722	1,454
Khulna	83	5,822	...	...	83	5,822	...	15	...	15
Malda	31	3,275	...	...	31	3,275	...	...	...	...
Midnapur	20,859	1,385,212	768	68,520	21,627	1,453,732	Incomplete	12,065	...	12,065
Murshidabad	241	64,589	...	...	241	64,589	...	255	...	255
Mymensingh	11,924	971,881	497	28,705	12,421	1,000,586	...	6,287	3,120	9,407
Nadia	4	825	...	...	4	825	...	6	761	767
Noakhali	3,348	355,366	...	...	3,348	355,366	...	1,220	487	1,707
Pabna	42	3,960	...	...	42	3,960	Complete ...	...	192	192
Rajshahi	6,506	678,570	1,429	209,895	7,935	888,465	Incomplete	8,125	900	9,025
Rangpur	...	...	...	...	...	...	...	760	...	760
Tippera	36	2,250	2,874	374,772	2,910	377,022	Incomplete	8,188	...	8,188
24-Parganas	113	8,427	1	135	114	8,562	...	594	...	594
Cooch Behar	705	98,950	328	26,958	1,033	125,908	Incomplete	2,705	...	2,705
Departmental returns	...	...	...	...	...	...	...	38,304	10,863	49,167
Extra Departmental returns ...	...	...	...	...	...	...	...	98,449	22,160	120,609
Total ...	73,661	5,819,229	6,316	715,105	79,977	6,534,334	...	255,623	48,773	304,396

DIX III.

Office Outturn.

the 30th September 1919.

SECTION.

Triangulation chart.			Jurisdiction map 1″=1 mile.						Jurisdiction map 4″=1 mile.			District maps.		
			Preliminary.			Final.								
Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.	Previously supplied.	Supplied during the year.	Total to date.
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
102	...	102	11,125	50	11,175	225	225	450	...	...	...	1,356	...	1,356
63	...	63	4,095	150	4,245	...	...	...	...	...	...	50	...	50
63	...	63	2,348	...	2,348	...	...	...	...	...	...	401	...	401
..	...	...	1,936	...	1,936	...	...	...	...	...	...	56	...	56
52	...	52	4,468	...	4,468	...	...	...	...	...	...	450	..	450
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	2,500	...	2,500	...	...	...	...	...	...	856	...	856
102	...	102	6,350	350	6,700	...	...	...	105	5,160	16,265	400	...	400
...	...	...	...	3,150	3,150	...	...	...	...	...	...	768	400	1,168
52	...	52	4,150	...	4,150	...	...	...	600	...	600	56	...	56
102	...	102	745	100	845	150	...	150	5,745	....	5,745	956	...	956
52	...	52	1,195	...	1,195	1,800	...	1,800	...	...	...	175	...	175
72	...	72	2,775	...	2,775	...	...	...	...	...	...	50	...	50
52	...	52	2,950	...	2,950	...	...	...	1,155	9,574	10,729	81	...	81
52	...	52	2,215	...	2,215	2,400	...	2,400	...	...	...	50	...	50
50	...	50	6,145	...	6,145	...	...	...	...	...	...	450	...	450
50	...	50	2,130	...	2,130	...	...	...	...	...	...	856	...	856
52	...	52	400	525	925	...	...	...	8,572	13,984	22,556	550	...	550
52	...	52	6,142	...	6,142	...	...	...	...	...	...	50	...	50
102	...	102	1,365	3,225	4,590	...	...	...	10,244	22,880	33,124	1,606	...	1,606
...	...	...	5,505	...	5,505	...	...	...	...	...	...	50	...	50
52	...	52	2,400	300	2,700	750	...	750	4,160	4,720	8,880	56	...	56
52	...	52	2,122	...	2,122	...	...	...	...	...	...	556	...	556
50	...	50	7,672	525	8,197	...	...	...	1,600	3,280	4,880	1,156	...	1,156
...	...	...	4 400	...	4,400	...	...	...	...	...	...	56	...	56
52	...	52	2,773	150	2,923	...	...	...	24	...	24	556	...	556
52	...	52	7,545	...	7,545	1,050	...	1,050	...	...	...	50	...	50
50	...	50	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1,378	...	1,378	95,801	8,425	1,04.226	6,375	225	6,600	43,205	59,598	1,02,803	11,697	400	12,097

APPEN

Bengal Drawing

For the year ending

MAP RECORD

DISTRICTS.	ORIGINAL CADASTRAL AND TOPO MAPS.			REVENUE DIARA AND TOPO MAPS.						TRAVERSE VOLUMES		
	Received.			Received.			Issued.			Received.		
	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.
	Sheets.	Sheets.	Sheets.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.
	27	28	29	30	31	32	33	34	35	36	37	38
BENGAL.												
Bakarganj	6,294	...	6,294	12	...	12	...	...	...	67	...	67
Bankura	517	...	517	4	...	4	...	...	...	7	...	7
Birbhum	311	...	311	51	...	51	...	...	...	6	...	6
Bogra	369	...	369	14	...	14	...	...	...	5	...	5
Burdwan	281	...	281	6	...	6	...	...	...	29	...	29
Calcutta	...	...	...	74	...	74	...	...	...	28	...	28
Chittagong	3,560	...	3,560	20	...	20	...	...	...	50	...	50
Dacca	7,246	...	7,246	5	...	5	...	...	...	77	5	82
Darjeeling	549	...	549	14	...	14	...	...	...	24	...	24
Dinajpur	994	5	999	19	...	19	...	...	...	40	...	40
Faridpur	5,905	379	6,284	8	...	8	...	...	...	43	1	44
Hooghly	241	14	255	16	...	16	...	...	...	21	...	21
Howrah	276	13	289	...	...	...	...	...	...	4	...	4
Jalpaiguri	5,102	89	5,201	14	...	14	...	...	...	70	...	70
Jessore	287	...	287	16	...	16	...	...	...	26	5	31
Khulna	447	...	447	2	...	2	...	...	...	16	...	16
Malda	194	69	263	25	...	25	...	...	...	17	3	20
Midnapur	13,663	119	13,782	17	...	17	...	...	...	87	...	87
Murshidabad	407	331	738	30	...	30	...	...	...	7	...	7
Mymensingh	11,070	800	11,870	60	...	60	...	...	...	78	6	84
Nadia	1	420	421	27	...	27	...	...	...	4	...	4
Noakhali	2,491	1,017	3,508	5	...	5	...	...	...	22	4	26
Pabna	629	131	760	27	...	27	...	...	...	10	...	10
Rajshahi	6,115	248	6,363	62	...	62	...	...	...	52	...	52
Rangpur	126	...	126	13	...	13	...	...	...	21	...	21
Tippera	3,356	2,155	5,511	18	...	18	...	...	...	41	40	81
24-Parganas	524	...	524	43	...	43	...	...	...	47	...	47
Cooch Behar	781	...	781	7	...	7	...	...	...	14	...	14
Ganges Diara (Miscellaneous) ...	...	...	...	26	...	26	...	...	...	107	...	107
Sikkim	...	...	...	...	...	...	...	...	...	1	...	1
Hijli	...	...	...	8	...	8	...	...	...	...	...	...
Total ...	71,736	5,870	77,606	643	...	643	...	...	...	1,029	64	1,093

DIX III—*concluded.*

Office Outturn—*concluded.*

30th September 1919—*concluded.*

AND ISSUE SECTION.

OF ALL KINDS.			FIELD BOOKS.			Calcutta surveys original and fair maps.			Thana trijunction index and traverse, plots, etc.			Traces for reproduction.		
Issued.			Received.											
Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.
Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.
39	40	41	42	43	44	45	46	47	48	49	50	51	52	53
...	...	...	63	...	63	...	...	...	220	...	220	2,372	...	2,372
...	...	...	...	...	...	...	...	...	32	...	32	...	...	...
...	...	...	3	...	3	...	...	...	22	...	22	...	...	...
...	...	...	3	...	3	...	...	...	8	...	8	181	...	181
...	...	...	34	...	34	...	...	...	20	...	20	...	...	...
...	...	...	28	...	28	2,335	103	2,438	...	...	...	...	...	...
...	...	...	62	...	62	...	...	...	43	...	43	3,374	...	3,374
...	...	...	127	...	127	...	...	...	451	...	451	...	...	...
...	...	...	32	...	32	...	...	...	61	...	61	...	...	...
...	...	...	11	...	11	...	...	...	35	...	35	212	...	212
...	...	...	38	...	38	...	...	...	438	...	438	...	...	...
...	...	...	68	...	68	...	...	...	9	...	9	...	...	...
...	...	...	3	...	3	...	...	...	11	...	11	...	...	...
...	...	...	98	...	98	...	...	...	320	...	320	...	...	...
...	...	...	2	35	37	...	...	...	25	...	25	...	...	...
...	...	...	35	...	35	...	...	...	95	...	95	...	...	...
...	...	...	7	1	8	...	...	...	33	...	33	...	...	...
...	...	...	196	...	196	...	...	...	388	...	388	176	...	176
...	...	...	2	...	2	...	...	...	20	...	20	266	...	266
...	...	...	103	...	103	...	...	...	308	...	308	...	...	...
...	...	...	1	...	1	...	...	...	44	...	44	...	...	...
...	...	...	4	...	4	...	...	...	68	...	68	90	...	90
...	...	...	4	...	4	...	...	...	37	...	37	...	...	...
...	...	...	66	...	66	...	...	...	232	...	232	...	...	...
...	...	...	11	...	11	...	...	...	35	...	35	...	...	...
...	...	...	30	19	49	...	...	...	17	...	17	...	...	...
...	...	...	35	...	35	...	...	...	54	...	54	16	...	16
...	...	...	23	...	23	...	...	...	...	...	...	...	...	...
2	...	2	81	...	81	...	...	...	357	...	357	...	...	...
...	...	...	2	...	2	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	2	1,172	55	1,227	2,335	103	2,438	3,383	...	3,383	6,687	...	6,687

APPENDIX IV.

Statement showing traverse Survey and Reproduction of maps of the Districts under Settlement.

NAME OF DISTRICTS.	TRAVERSE SURVEY.							REPRODUCTION.							Remarks for increase or decrease in expenditure.
	Total area of the district estimated for survey.	Area completed up to previous year.	Estimated programme for the year under report.	Area completed during the year under report.	Remaining.	Estimated cost for the year.	Actual cost for the year (including control).	FORECAST BY THE DIRECTOR OF LAND RECORDS, BENGAL. Number of sheets.	FORECAST BY THE DIRECTOR OF LAND RECORDS, BENGAL. Number of pulls.	Number of sheets received.	Actual number of copies reproduced.	Estimated cost for the year.	Actual expenditure for the year (including control.)	Difference between columns (9) and (11).	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Sqr. miles.	Sqr. miles.	Sqr. miles.	Sqr. miles.	Sqr. miles.	Rs.	Rs.					Rs.	Rs.		
Jessore	2,900	1,59	649	649	661	45,038	45,910	600	69,212	...	...	...	...	- 600	
Bankura	2,621	1,144	777	777	700	42,562	42,382	1,025	128,290	...	...	...	...	- 1,025	
Nadia (upland) ...	2,603	715	914	914	703	74,542	56,042	...	...	...	...	...	...	...	
Nadia (diara) ...			271	271											
Mymensingh ...	...	...	...	...	...	...	...	400	30,960	591	28,705	...	3,915	+ 191	
Rajshahi	...	...	...	...	...	...	...	1,769	279,275	1,260	209,895	...	29,507	- 509	
Midnapur	...	...	...	...	...	...	...	...	5,375	460	68,520	27,000	32,053	+ 460	
Tippera-Noakhali ...	...	...	...	...	...	...	...	3,728	327,765	2,502	374,772	17,500	50,351	- 726	

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REPORTS

ON

SURVEY AND SETTLEMENT OPERATIONS

IN BENGAL

FOR THE YEAR ENDING

30TH SEPTEMBER, 1919.

CALCUTTA :

BENGAL SECRETARIAT BOOK DEPOT.

1920.

[Maximum limit, 30 pages.]

REPORT

OF THE

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS, BENGAL.

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DEPARTMENT OF LAND RECORDS, BENGAL.

No. 1583.

FROM F. A. SACHSE, ESQ., I.C.S.,

Director of the Department of Land Records, Bengal,

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,

REVENUE DEPARTMENT.

Dated Calcutta, the 5th January 1920.

SIR,

I HAVE the honour to submit the following report on the Survey and Settlement operations conducted by this Department during the year ending on 30th September 1919. Mr. W. H. Nelson, I.C.S., officiated till 5th November, and I have been in charge for the rest of the year.

Introductory.

2. **Major operations (Imperial).**—During the year under report, the major settlements of Midnapore and Mymensingh were all but completed, and the Rajshahi and Tippera-Noakhali operations also reached their final stages. The settlements of Jessore and Bankura were in full swing, and Nadia completed its first field season. In March instructions were received to revive the four party programme, which had been reduced to three during the war, and to take up the resettlement of all important Government and temporarily-settled estates, which had been kept in abeyance for the same reason. In pursuance of this decision the new settlement selected is Pabna-Bogra, and traverse of the first block will be done during the ensuing field season, while petty settlement parties have been organised in the districts of Bakarganj, Faridpur and Darjeeling.

During the year 2,098 square miles were finally published as opposed to 3,142 in 1917-18, 2,024 square miles as against 1,676 square miles were attested and 2,375 square miles passed through the stage of cadastral survey as compared with 2,517 square miles in 1917-18, 1,211 square miles in 1916-17, and 1,811 square miles in 1915-16.

3. **Minor operations (Provincial).**—In the last two years of the war no new estates had been taken up for land revenue settlement owing to the financial stringency. It is not desirable to take up piecemeal settlements of permanently-settled estates on the application of individual zamindars in districts which are due for major operations in the near future, and several applications were rejected on these grounds.

This branch of Provincial operations is becoming more and more limited as the programme of major settlements advances, and in the year under report only 3·16 square miles were cadastrally surveyed. Some work was, however, done in connection with the final stages of settlements of both classes initiated before 1916 in the districts of the 24-Parganas, Howrah, Mymensingh and Faridpur. Altogether a record-of-rights was finally published during the year for 30 72 square miles of area within the sphere of Minor Operations.

4. **Total area completed.**—The total area for which up to the end of the year under report a record-of-rights has been completed is 32,132 square miles out of about 65,960 square miles in the Province to which the Bengal Tenancy Act applies. Details of this area have been given in Appendix I.

PART I.

Major operations.

5. **Mymensingh.**—Babu Hira Lal Sen, Sub-Deputy Collector, who took over charge at the end of the last year from Khan Sahib Saiyid Muazzamuddin Husain was Assistant Settlement Officer in charge under the Collector throughout the year.

6. *Progress and Expenditure.*—Details will be found in Appendix II. At the end of the year only a few cases under sections 105, 106 and 108A and some diara proceedings in rivers taken up after final publication were pending. Except for a few mauza bundles and the files of pending cases, all records have been made over to the Collector. He has not, however, received all the 1-inch and 4-inch maps. The special inquiry of Rai Sahib Hara Kishor Biswas into the feasibility of resumption proceedings in the Jamuna referred to in last year's report was completed. The Board passed orders on his report in May and directed that the resumptions should be proceeded with on the basis of the Revenue Survey. At the request of the Board a special officer, Babu Pramatha Nath Datta, Sub-Deputy Collector, has been placed in charge of the operations, which should be looked upon as an offshoot and not a pending portion of the district operations.

The main items of work gone through during the current year were a few arrears of printing, computation and recovery, and case-work. The cost rates during the year are noted below :—

Branches of work.	Actual cost rate per square mile.		Cost rate according to the complete estimate.	Standard cost rate.
	For the year.	Up to its end.		
Final records ...	92	43	33	54
Computation and Recovery	48	15	26	29
Case-work ...	22	21	26	16

The high cost rate in the press is due to the large number of interests in parts of the Kishorganj Subdivision and the number of plot indexes from the first two blocks which had been left to the end. The cost rate, up to date, however, is Rs. 11 below the standard. The scattered nature of the area under recovery accounted for the high cost rate under this head. The cost rate in case-work is below the estimated rate. The total cost of the operations up to the end of the present year is Rs. 40,95,792 as against the estimated cost of Rs. 41,86,602. After meeting the expenditure still to be incurred, including the cost of the Resumption Proceedings in the Jamuna, there will be a saving of about Rs. 50,000, which has been the direct result of a policy of economy in every branch of the work.

7. *Case-work.*—Two officers were engaged in the disposal of cases. One dealt with the cases at Tangail and the other with the original and remand cases of Sadar, Kishorganj and Bajitpur thanas ; fair and equitable rents were fixed for 17,250 tenancies, while 387 cases under section 106 and 568 cases under section 108A were disposed of. These figures do not include the remanded cases which affected 1,330 tenancies. The average outturn of each officer per month was maintained at the very satisfactory figure of 800 tenancies under section 105, 16 cases under section 106, and 24 cases under section 108A. The cases under section 105, Bengal Tenancy Act, resulted in an increase of 25 per cent. in the tenants' rent, more than half of which was due to assessment of additional rent for excess area. In the majority of cases the Special Judge upheld the rate at which enhancement was allowed.

The total number of appeals instituted during the year was 97 against decisions under section 105 and 41 in cases under section 106, Bengal Tenancy Act. With those pending from the previous year, the number came to 286 and 195 cases under sections 105 and 106, Bengal Tenancy Act, respectively. Of these, 167 appeals in section 105 cases and 94 in section 106, were disposed of during the year with the result noted in Appendix VI.

8. *Recovery.*—One Assistant Settlement Officer for six months and two kanungoes for two months realized Rs. 2,01,570 against the estimated amount of Rs. 2,02,833.

9. *Diara.*—The programme of diara covered no less than 418 new estates. One Sub-Deputy Collector was employed throughout the year and two kanungoes for 5 months. Eighteen proceedings have been confirmed, and 32 others are under submission to the Board. Of the balance dealing with 368 estates, in 131 objections are being awaited, in 108 objections are under disposal and in 129 the proceedings are under preparation. The officer was deputed to cyclone relief work in October and the work is expected to take about 6 weeks after he rejoins. The land revenue of the estates in which the proceedings are already confirmed or are under submission to the Board is Rs. 13,082.

10. **Midnapore.**—Mr. F. W. Robertson, I.C.S., was in nominal charge in addition to his own duties as Settlement Officer of Bankura. Rai Sahib Bijay Bihari Mukharji, Deputy Collector, worked as Assistant Settlement Officer in charge till December 1918 when he was relieved by Babu Karali Charan Gangali, Deputy Collector, who is still in charge.

11. *Progress.*—Appendix II shows the progress and performance during and up to the end of the present settlement year. All *jamabandi* work was concluded and the resettlement of the 19 temporarily-settled estates of Patas-pur was confirmed by the Board. All the diara proceedings except two, have been confirmed by the Board of Revenue.

The arrears of statistics, 16-inch maps and printing were all worked off during the year under report.

12. *Expenditure.*—The actual expenditure during the year was Rs. 1,55,579 against the estimated amount of Rs. 1,94,481, while the actual expenditure up to the end of the settlement year was Rs. 29,81,003 against the total district estimate of Rs. 29,47,078. The work in this district is expected to be completed by the end of the current financial year and it is estimated that an additional expenditure of about Rs. 15,000 will be incurred. The excess which is mainly due to the large institution of cases, is more than made up by the excess in receipts.

13. *Recovery.*—The total computed demand of the district is Rs. 23,36,089-3, of which Rs. 22,18,191-8 has already been recovered, leaving a deficit of Rs. 1,17,897-11. Of this, however, Rs. 4,63,681 is payable by the Local Government and Public Bodies, Rs. 10,800 is under *kistibandi* with the Nawab Bahadur of Murshidabad while a sum of Rs. 18,362-12-6 made up of small sums of Re. 1 and less has been remitted after local enquiry. Of the real balance of about Rs. 42,000, Rs. 27,000 is payable by the Midnapore Zamindary Company and will probably be recovered in a short time.

14. *Case-work.*—The main item of work during the year was the disposal of cases. 14,737 cases with 66,090 tenancies under section 105, 2,725 cases under section 106, 1,911 applications for commutation of produce-rent under section 40, 23 under section 108, and 2,074 under section 108A were disposed of. The work started with 16 officers, but the number was gradually reduced to two at the end of the year. The total number of appeals instituted up to the end of the year in cases under section 105 and section 106 is 15,834 and 75 respectively. 2,685 of the former and 32 of the latter were disposed of. Generally speaking, the appellate courts approved of the procedure followed by the Assistant Settlement Officers of deducting 10 per cent. from the present survey area before assessing the excess area under section 52 of the Bengal Tenancy Act, except in cases where the tenants by written contract had agreed to pay for any excess found on measurement. The cost of court-fees disallowed by the lower courts was allowed on appeal by the Special Judge in all successful cases under section 105.

The number of cases yet to be disposed of includes :—

279	cases	under	section 105,	Bengal Tenancy Act.
43	„	„	106,	„
98	„	„	40,	„
8	„	„	108,	„
1,599	„	„	108A,	„

A few more may be filed in 16 villages, which being affected by the diara operations were not finally published until the end of the year.

15. *Miscellaneous—Section 112, Bengal Tenancy Act.*—The most noteworthy event of the year was the confirmation by the Governor-General in Council of the rent settlement under section 112 of the Bengal Tenancy Act of pargana Silda belonging to the Midnapore Zamindary Company. The new rents have come into effect from the beginning of the present Amli year which commenced on 7th September. The local Government had applied for powers under this section for the Settlement Officer in 1913 as the only way of enabling him to avoid recording the recently enhanced rents of the aboriginal and semi-aboriginal mandal tenure-holders at a level above that which they could pay without in their turn enhancing the rents of their raiyats beyond the legal limit. The elaborate procedure involved in the preparation and application of tables of rates for five groups of villages was carried out during the two field-seasons of 1915-16 and 1916-17 with exemplary exactitude and patience by the two Assistant Settlement Officers, Babus Surendra Nath Banarji and Karali Charan Gangali.

When I took over charge, 1,603 appeals were pending for my decision which were disposed of in November and January, and the confirmation report was submitted to the local Government in March. The proceedings were confirmed without change by the Government of India on 11th August 1919.

16. **Rajshahi.**—Mr. W. H. Nelson, I.C.S., was Settlement Officer throughout with Babu Romesh Chandra Sen, Deputy Collector, as his Charge Officer.

According to programme the Operations should have come to an end in the year under review, but the heavy programme of Diara Proceedings has protracted the closing stages into the current settlement year.

17. *Progress.*—The area actually surveyed is 3,640 as against the estimated area of 3,820 square miles. Details of programme and performance will be found in Appendix II. Performance during the year was well in advance of programme in all stages except case-work. This accounted for the year's expenditure being Rs. 2,36,093 against the estimate of Rs. 1,63,307. The main items of work remaining are case-work and resumption proceedings.

18. *Expenditure.*—The total expenditure up to 30th September 1919 comes to Rs. 29,26,062 as against the estimated amount of Rs. 28,13,905. There is thus an excess of Rs. 1,12,157, but even with the addition of the estimated expenditure in the current year it will not mean an excess over the original estimate of more than 5 per cent. The excess in the cost rate of the stages shown below may be attributed to the large number of plots and interests per square mile. Plots averaged 1,433 and interests 447 per square mile, respectively, as against the standard of 1,000 plots and 250 interests on which the estimate was based :—

Branch of work.	Cost rate according to the total estimate.	Actual cost rate.
	Rs.	
Khanapuri	37	49·6
Bujharat	87	107·2
Attestation	61	84·6
Final Record	49	68·8
Case-work	17	26·6

19. *Jamabandi and Diara.*—Diara proceedings in respect of 181 estates covering an area of 29 square miles were drawn up. Proceedings relating to 54 estates were dropped, 32 have been confirmed, and the remainder are in course of preparation. The total area under *jamabandi* is 54,204 acres, of which the rent-roll for 3,683 acres has been confirmed. In these estates the increase in revenue is 20 per cent.

20. *Case-work.*—All but 500 cases filed in blocks A and B and half of block C were disposed of during the year. The total number of tenancies dealt with under section 105, Bengal Tenancy Act, was 40,730, and the result has been an increase in the raiyats' rent of 18 per cent. and in that of tenure-holders, of 34 per cent. 2,826 cases under section 106 were disposed of.

One hundred and fourteen appeals were heard against decisions in cases under section 105, and in no instance were the decisions upset. None of the appeals against decisions under section 106 have as yet come up for hearing. Cases in respect of 10,609 tenancies were pending at the end of the year, while it is expected that in areas where the period for institution of cases has not yet expired, applications in respect of 10,000 tenancies will be made. Of suits under section 106 of the Bengal Tenancy Act, 1,067 were pending when the year closed. Five hundred more are expected.

21. *Recovery.*—The total area for which computation has been concluded up to date is 3,283 square miles. Recovery has been completed in 3,181 square miles. The total computed demand was Rs. 20,23,270 of which Rs. 18,21,734 has been realised up to date. Of the balance of Rs. 2,01,536, Rs. 20,013 is under certificate; Rs. 13,592 is payable by the Local Government for khas mahal estates; Rs. 97,089 is due on instalments arranged beforehand with the landlords; Rs. 10,554 is under remission as irrecoverable and Rs. 60,288 will, it is expected, be realised before 31st March.

22. *Miscellaneous.*—Cess revaluation of 1,139 estates was pending on 30th September, 1918. Of these, 1,089 have been completed and only 50 estates which are under settlement of land revenue, are pending.

23. **Tippera-Noakhali.**—Mr. W. H. Thompson, I.C.S., was in charge until he went on leave on the 14th of September. Khan Sahib Kabiruddin Ahmad worked as Charge Officer until January 1919 when he was transferred to Nadia. Maulvi Abdul Jalil Khan was Head-quarters Assistant Settlement Officer.

24. *Progress and Expenditure.*—The details of the work done together with the expenditure incurred during the year and up to date are given in Appendix II. The total area in the joint operations actually surveyed came to 2,991 square miles, as against 3,200 square miles shown in the estimate. To this there was an addition of 4 square miles lying within the ambit of the previously surveyed Pargana Chakla Roshnabad which had been omitted at the previous settlement. Over and above this, all stages subsequent to bujharat including *jamabandi* were done by this settlement of 19 square miles of diara land in the river strip surveyed by the Dacca and Faridpur Parties. The work is ahead of the programme as the following figures will show :—

	According to programme up to date.	Actual performance.
Statistics	2,450	3,014
16″ maps	2,450	2,963
Topo maps	2,450	2,771
Printing	2,450	3,014
Computation and Recovery	1,950	2,000

The total area coming under resettlement of land revenue was estimated to be 318 square miles and this figure has been shown in column 5 of Appendix II, but the actual area was 254 square miles and this has all been completed. The following is an abstract of the work still on hand at the close of the year under review :—

Computation	700	square miles.
Final publication and recovery	800	„ „
Preparation of jurisdiction list	6	thanas
Case-work	91,512	tenancies.
Maps ... 16″	51	square miles.
Maps ... 4″	953	„ „
Maps ... 1″	2,427	„ „
Maps ... 2″	1,713	„ „

Nothing of decisions of cases under sections 105 and 106 in the public copies of the record-of-rights under section 107, Bengal Tenancy Act.

The postponement of recovery in Brahmanbaria thana twice—once in October 1918 and again in July 1919—on account of floods and economic distress is responsible for the arrears in recovery and case-work. But it is expected that practically all arrears will be worked off by the end of the next financial year. The expenditure during the year excluding special work was Rs. 3,11,783 which exceeded the budgeted figure of Rs. 2,68,533, but as

explained above, this was due to the work done being largely in excess of the estimate. The expenditure up to date of Rs. 21,33,008-1-7 compares favourably with the sanctioned estimate of Rs. 24,52,000 for the entire operations, and after allowing for the cost of all pending work, a considerable saving may be expected.

25. *Cadastral.*—All stages from traverse to final publication were completed in a small area of 4 square miles in Alekdiha mahal and certain Lakheraj Bajeapti mahals within the ambit of Pargana Roshnabad which was not covered by the Notification of 1910. There were some difficulties about adjustment of boundaries with the previously surveyed areas, which were disposed of after local inquiry.

26. *Attestation and Miscellaneous Branches.*—The area under attestation was 183 square miles with 72,207 interests. It was spread over thanas Muradnagar, Chandina, Comilla, Chaudagram and Laksam. Three-quarters of the area of these thanas was completed in the previous year and no new problems arose. The number of objections, however, increased to 16,193 as opposed to 7,129 in the previous year. The people had been warned by their experience in the villages attested before to examine the entries in the records in good time and they put in objections wherever they had doubts. Sixty per cent. of the objections related to possession and shares and the number of objections filed by tenants against landlords was nearly double that of the previous year. The attitude of the tenants in this respect indicates a growing consciousness of their own rights and of their power to assert them. Thirty-seven per cent. of the cases were successful or partially successful. Land revenue was resettled in 78 estates with an area of 44 square miles. The services of two whole-time officers were required to complete the programme. The records of 67 estates with an area of 38 square miles were finally published during the year, and 11 estates with an area of 6 square miles were finally published after the close of the year. The land revenue in the former group increased from Rs. 45,814-5-7 to Rs. 60,569 or by 32 per cent. There were no rivers in the last two blocks of Tippera in which diara proceedings were necessary.

27. *Case-work.*—Thirteen thousand and fifty-nine cases under section 105, 313 cases under section 106 and 870 cases under section 108A were disposed of. There were three officers at the beginning of the year and they were assisted by five others during the recess. Institutions in the Sarail Estate in the Brahmanbaria Subdivision have greatly exceeded expectation and this estate alone is filing about 35,000 cases. If this estimate is approximately correct the number of tenancies to be dealt with in the next settlement year will exceed 90,000 tenancies. The result of the year's working has been an increase in the rent of tenures, of 26 per cent. and in the rent of raiyati-holdings, of 30 per cent. The total number of appeals filed up to the end of the year is 377, all of which have been disposed of.

28. *Final Publication and Recovery.*—Exclusive of the area under diara and *jamabandi* the total area from which costs are to be recovered is 2,749 square miles. Two thousand square miles are already completed and the remainder will be finished in the current financial year. The total amount recovered without certificates during the year was Rs. 5,10,282-12-6, which considering the economic position, is quite satisfactory. The raiyats generally were quite eager to pay, and their keenness to obtain records and maps is evidenced by the fact that even in Brahmanbaria, which suffered from floods and famine, 80 per cent. of the raiyati demand was paid up within a month.

29. *Miscellaneous and Cess Revaluation.*—The assessment of 1,908 estates in the District of Noakhali was completed in previous years and the balance of 792 estates with their separate accounts were dealt with in the year under review. The rolls were duly published and the files arranged and made over to Collector. The result is compared with the pre-existing valuation in the statement below :—

	Old.		New.	
	Rs.	A.	Rs.	A.
Valuation	35,59,081	11	38,05,634	2
Cess	1,98,583	0	2,11,829	0

The net increase of Rs. 13,245-15-8 is much less than was anticipated but many mistakes in the previous valuation, chiefly the assesment of cess raiyats as tenure-holders, came to light. The cost of the revaluation has been Rs. 32,699.

30. *Handing over the records to the Collector.*—Satisfactory progress has been made in Noakhali and the bound volumes have all been made over to the Collector. In Tippera the work has not yet been started, but as it has been arranged that the Collector should keep the records in the settlement record-room, no undue delay should occur.

31. *Settlement Buildings.*—The Committee appointed under Government Resolution No. 900-T.R. of 28th July 1919 have decided that the settlement buildings including the Press sheds and the Press store-room subsequently built should be taken over by the Police Department. The Collector is already occupying the Settlement Officer's residence.

32. **Bankura.**—Mr. F. W. Robertson, I.C.S., was Settlement Officer throughout the year. Babu Surendra Nath Banarji, Deputy Collector, worked as Charge Officer for attestation, and Babu Satamanyu Mukharji was Cadastral Charge Officer during the field-season.

33. *Progress and Expenditure.*—The main items in the programme were 968 square miles of attestation in block A and 797 square miles of cadastral survey, khanapuri and bujharat in block B. Attestation was completed very easily, but though the area actually encountered in block B was 3 miles less than the standard block, the programme was only completed in September after a severe struggle which proved a heavy tax on the health and energy of the staff. For this, the epidemic of influenza and fever which decimated the amins at the beginning of the season was mainly responsible. The average number of amins under each kanungo never exceeded six and khanapuri was started very late with the result that the kanungos were out in the fields to the very end of the rains. As a consequence there was no one to supervise final janch at headquarters, but sufficient was done before the end of September to enable the presses to start work in November and the arrears have now been worked off.

The expenditure during the current year has been Rs. 4,76,706 as against the budget figure of Rs. 4,78,661 and that up to date is Rs. 7,86,402 against the sanctioned estimate of Rs. 9,22,574. The cost rates during the year and up to date are compared with the sanctioned estimate in the statement below :—

	Cost rate for the year.	Cost rate up-to-date.	Cost rate according to sanctioned estimate.
	Rs.	Rs.	Rs.
Cadastral	128	107	114
Khanapuri	41	35	39
Initial recess	22	19	18
Attestation	33	33	·62
Objections	7	7	25
Janch	25	25	20

The Asansol Subdivision is the most advanced industrial tract in the province, if not in India as a whole, and both cadastral survey and khanapuri presented special and peculiar difficulties. The excess over the estimated cost rates in these branches in the second year of the settlement need therefore cause no anxiety, as the cost rates up to date are well within the estimate and the remaining blocks of Bankura will not be expensive. The cost of attestation in A Block is a sufficient indication of this.

Kistwar, Khanapuri and Bujharat.—The Settlement Officer never recovered from the bad start caused by the outbreak of fever and influenza which kept most of his amins idle in November and December and frightened away many others. To add to his difficulties rumours were prevalent that prices in the area were high, coolies were expensive and difficult to obtain, and the people were unsympathetic, if not actively hostile. These rumours were not without justification. Ten to twelve annas per diem was the lowest wage a chainman would accept, and even at these rates the supply was not equal to the demand. In the end the colliery officials gave valuable help, but in the meantime two of the most precious months of the field-season had passed with very little in the way of substantial progress. Fields were very small and very irregular in their shape and what with collieries, railways and trolley-

lines, workshops and other pucca buildings, kistwar was difficult and tedious. Khanapuri hardly made better progress. The value of royalties on coal made every inch of land worth fighting for, and the number of boundary disputes was large. Estates are small and much split up and thak comparison had to be very carefully done. Separate collections by many groups of co-sharers made the record confusing and the record of the Asansol Municipality presented unusual complexities. The number of co-sharers in rayati-holdings was unprecedented and this meant a large number of disputes regarding shares and possession. Acquired lands were sufficiently numerous to add considerably to the kanungo's work and the verification of the boundaries described in colliery leases involved the study of an unusual number of documents. In the circumstances, the late finish was not surprising and only Mr. Robertson's own example of untiring labour could have given his staff sufficient courage to struggle on to the end. The number of plots to a square mile was 1,309 and of interests 275. These remarks fortunately do not apply to the two circles in Bankura district where the work was as simple as in block A.

35. *Attestation.*—The record was simple on the whole, but the Officers were not all experienced and the clerical staff was inefficient. The proper organization of janch involved much hard work at the beginning of the season, but progress then became smooth and rapid. Many tenants took advantage of section 50, Bengal Tenancy Act, to claim fixity of rent and in the majority of the cases the landlords had little evidence by which to rebut it. Illegal enhancements except in Chatna thana were rare. As noticed in last year's report, a surprising variety of produce-rents was encountered. Sometimes the rent of a holding is an animal, a couple of vegetables, or a broom-stick. Ordinary produce rents are common, and sometimes both cash and produce are paid. An appreciable number of these combined rents are found in the case of purchased holdings in which the old raiyat remains in possession and pays greatly increased rent to the purchaser. A few cases were found in which in lieu of rent the tenant works in the landlord's field for a fixed number of days. Some peculiar incidents were found in lands growing sugarcane. Here the tenants paid rent annually but grew cane only in one year, while the landlord grew *rabi* crops thereon in the next. Some lands were claimed as *utbandi* in thana Simlapal and in parts of Raipur. It appeared that the tenants paid rent for *danga* lands only for the years they grew crops on them, but the holdings had fixed limits and there was no custom of annual measurement.

The number of objections was small, being only 6 per square mile. Of these 34 per cent. were allowed.

36. *Miscellaneous.*—The relations of landlords and tenants in the area dealt with are on the whole satisfactory, but the Bengal Coal Company, the late Babu Chandra Sekhar Sarkar and Babu Jagat Bandhu Singh Chaudhury certainly do not err on the side of leniency in the treatment of their tenants. Increased facilities for employment in industrial concerns have not weakened the Bengali's characteristic attachment to his ancestral home. The pleaders of Asansol still return every week to their houses near Raniganj, while it is reported that many of the labourers in the Bengal Iron and Steel Works daily come and go from villages 15 miles distant.

37. *Ghatwali Resumptions.*—Steps were taken to resume all unresumed *ghats* within each attestation circle. After discussion with the Collector and the Commissioner some variations were introduced in the *kabuliyats* granted at earlier resumptions. Of 218 ghatwals 139 have already executed *kabuliyats* and the Settlement Officer hopes that the remainder will follow their example at an early date. Most of the *ghatwali* tenures in the Asansol Subdivision were resumed in 1906. One *digwari* holding still exists in the villages of Parra and Kendwa. This was not resumed under special orders of the Government and the holder still attends the Subdivisional Officer's Court and is liable for service. The tenure is rich and important as the Bengal Iron and Steel Works have been erected on its land. A number of unresumed *ghatwalis* exists in Saltora and Majhia thanas. These will be taken up at attestation.

One peculiar form of *chakran* tenancy is called *jalsasan chakran*. The land is enjoyed either rent-free or at quit-rent on condition that the grantee constructs and maintains tanks for the use of surrounding lands.

38. *Administration of the Bengal, Tenancy Amendment Act.*—There were altogether 14 cases reported under section 49H of the Act by the Attestation Officers and two by the Collector. The Settlement Officer thinks that steps should be taken to give a wider publicity to the provisions of the Act and that, in any case, it has come too late to do very much good. The Sonthal does not look upon the Act as an unmixed blessing and the limitations on free transfer affect him rather adversely in a year of scarcity. The introduction of Co-operative Grain Golas is possibly essential to the successful working of the Act.

39. **Jessore.**—Khan Bahadur Abdul Momen joined as Settlement Officer on 1st October. Khan Shahib Muazzamuddin Husain and Babu Abani Kumar Sen worked as Charge Officers.

40. *Progress and Expenditure.*—The programme was extremely heavy. It comprised 656 square miles of kistwar and khanapuri including 182 square miles left over in Narail from last year, bujharat of an area of 936 square miles including an arrear of 462 square miles, and attestation of 812 square miles. Allowing for some variations due to miscalculation of area the whole was completed. The number of plots increased at all stages, with the result that bujharat was actually done of 1,638,041 plots, an unprecedented burden even for 80 kanungos in one season. The actual number of interests attested was 650,036 as against an estimate of 338,000. Attestation Officers worked right up to the Pujas, and final janch is the one item in which the programme is now in arrears. An excess over the original estimates in the expenditure of this settlement became inevitable when it was decided to convert it into a four-block settlement in the middle of the first field-season. The disappearance of the traverse pegs laid down in 1914 in the expectation that the work would begin in 1914-15 was mainly responsible, but much of the expenditure incurred before the staff was disbanded in that season must be written-off as unproductive, and the large number of plots and interests to the square mile has doubled the estimated cost of printing and attestation. The task of recasting the estimates for the settlement, as a whole, has been postponed to the end of the current field-season in the hope that some excuse may be found for a more optimistic budget than the figures for A and B blocks would at present justify. That strict economy is being observed in every branch will appear from the following comparison :—

	Actual cost rate up to date.	Cost rate according to sanctioned estimate.	Standard cost rate for four-block district.	Standard cost rate adjusted on the basis of plots and interests per square mile.
	Rs. A.	Rs.	Rs.	Rs.
Cadastral	108 0	117	115	115
Khanapuri	77 9	40	39	55
Initial recess ...	19 10	26	18	18
Bujharat	101 4	86	94	112
Attestation	130 3	61	66	191

It will appear from the above that the total cost rate up to date of the first four branches comes to Rs. 306-7 as against a cost rate of Rs. 300, which the increased number of plots and interests would justify, but there is a considerable saving in attestation.

41. *Cadastral Khanapuri.*—The Jhenida Subdivision is fairly high, as a whole, but there are very few big villages without one or more large *bils* or marshes, which only dry up late in April. The dense jungle which has overgrown many depopulated villages and homestead sites full of bamboos and *pan*-groves hampered the progress of survey, and very little help was received from the villagers who were both apathetic and ignorant. Changes in the course of the Madhumati and the absence of traverse stations on the Faridpur 16-inch maps made reconciliation of the boundaries of the newly surveyed villages with those of previously settled areas more than usually troublesome. Further, there were innumerable cases of land held under different landlords or under various titles having been sublet as one holding, and the settlement staff soon found that they could look for little help from the landlords in unravelling complications of this nature.

42. *Attestation.*—The progress of attestation was very slow owing to similar difficulties and the large number of different interests paying a common rent. An idea of the volume of work involved in the check of cross references of rent may be gathered from the fact that in one circle with 36,493 interests there were 4,123 rent references or *barat* entries. The proportion of under-raiyats to raiyats continues to be high and in the area under attestation was 75 per cent. Generally it has been found that the under-raiyats are treated as having the same privileges as raiyats and have occupancy right by custom. So far few cases of enhancement of rents have been found and claims to statutory *mukarrari* right have been numerous. Cess in a number of estates is realised at one anna instead of half anna per rupee and other *abwabs* are not infrequent, but generally the relations of landlords and tenants are good. In pargana Yusufpore a winter allowance—*sitari*—is realised at annas 8 per head, while the marriage expenses in the zamindar's family are recouped by a levy of annas 8 from each tenant. Instances have been found where *abwabs* in the shape of collection expenses are realised at one anna to 6 annas per rupee of rent.

Rent-receipts are generally granted, but as they seldom show the area, the landlords will have great difficulty in putting forward claims for increased rent.

Jessore has notoriously a bad climate, but the season of 1918-19 surpassed all records in this district. One Sub-Deputy Collector died of fever at the beginning of the season, and a Deputy Collector had to be relieved after 3 months. One kanungo was attacked with cholera, and it was rare to visit any *halka* in November or December without finding the kanungo and at least half his amins down with fever Several amins died of cholera and influenza, and when the amin was well enough to work the absence either of his muharrir or chainman made work impossible. The Settlement Officer distributed quinine wholesale, employed a whole-time Sub-Assistant Surgeon and encouraged all his officers to engage themselves most unselfishly in Red Cross work. But, in the meantime, all hopes of completing the programme before the rains had vanished. That it was in the end completed even a little earlier than in Bankura and in Nadia I attribute to the strong feeling of attachment which the hardworking Charge Officers and staff of this settlement bear to the person of their Settlement Officer.

43. **Nadia.**—The Settlement Officer Mr. J. M. Pringle, I.C.S., was on leave from 17th of January to 23rd July. Khan Sahib Kabiruddin Ahmad was in charge till 10th March when Mr. H. C. V. Philpot, I.C.S., was appointed to officiate as Settlement Officer. Khan Sahib Kabiruddin Ahmad reverted to the general line before Mr. Pringle returned, but Babu Kalipada Maitra remained as Charge Officer and headquarters Assistant Settlement Officer.

44. *Progress and Expenditure.*—The details of the first season's working are given in Appendix II. The diara areas to be surveyed had been overestimated and when all the maps were finished, it was found that 953 square miles instead of 1,035 in the programme had been dealt with. This decrease accounts for the greater part of the saving of Rs. 85,000 on the original estimate. Plots are not very much in excess of the standard figure of 1,000 per square mile, but interests run to 437 as against the standard of 250 per square mile.

The cost rates of the different stages are as follows :—

	Actual.	Cost rate according to sanctioned estimate.	Standard cost rate.
	Rs.	Rs.	Rs.
Kistwar	101	116	115
Khanapuri	49	40	39
Initial recess	22	18	18
Bujharat	96	91	94
Total ...	268	265	266

45. *Area and special features.*—The first block of this settlement stretched on both sides of the Bhagirathi river on the west of the district from the southern boundary of Murshidabad to the Jubilee Bridge at Naihati and

included six Municipalities. Ninety-four of the 953 square miles surveyed lay on the west bank in the Burdwan, Hooghly and Murshidabad districts. The remaining area inside the Nadia district has been divided by the Settlement Officer for purposes of description into three zones, each having its own characteristics not only as regards physical features but system of land-tenure. The northernmost area is open except in the immediate vicinity of the village sites, and most of the land is high and sandy. Depressions marking the course of defunct rivers occur at intervals and in these *aman* rice both transplanted and broadcast is cultivated. Elsewhere *aus* and *rabi* are grown but after three years' cropping, the fields are almost invariably left fallow for an equal period. The Settlement Officer has not been able to trace any investigations into the natural qualities of the Nadia soil which make this regular fallowing necessary, and recommends the subject to the attention of geological experts. In a sparsely populated area of more or less barren soil, the system of land-tenure known as *utbandi* does not seem unnatural, and it has retained many of its traditional characteristics. Rent is paid only for the area actually under cultivation each year and though particular fields seldom pass from one raiyat to another, the same family taking the same plot back into cultivation time after time, there is more fluctuation between the holding as it exists in one year and the common stock than the Settlement Officer was at first inclined to believe. The tenants certainly enjoy a right of piecemeal surrender which is not an incident of the ordinary raiyati holding or of the tenancies with fixed limits but a varying rent referred to by the Rent Commissions under the name of *hal-hasili*, and, in the circumstances, it would be difficult to hold that the landlords have lost their right of re-entry by disuse.

In the central zone between the Jallangi and Churni rivers the country is less open. There is a large proportion of low black soil growing *aman*, but *aus* is still the main crop. There are signs that cultivation is extending, whereas further north a state of equilibrium has already been reached. Two of the municipalities in this area, Krishnagar and Birnagar, are in a state of visible decay, but Santipur is the most flourishing town in the district. The sugar industry is dying, but the peasantry, especially in the vicinity of the towns, have been helped by the excellent railway communications with Calcutta to depend very largely for their income on market-gardening.

Claims to *mukarrari* rights are frequent among raiyats and under-raiyats alike, and here also extensive areas are claimed as *utbandi*. As in the north, local custom makes a clear distinction between the lands let in *jamai* and *utbandi* holding, but it appears that many of the legal criteria of *utbandi* holdings, especially the yearly measurement, are, if not altogether absent, at least much less prominent and unmistakeable. Both these zones are notoriously unhealthy, the water-supply is bad, even the resident landlords do nothing for their tenants, and *abwabs* are heavy.

The last zone in the south lies in police stations Ranaghat, Chakdaha and Haringhata. Deserted houses falling into decay and orchards and gardens overgrown with thick jungle supply abundant evidence of a departed prosperity. The predominating soil is of a rich black clay, fallowing is comparatively rare, and tobacco, chillies and *aman* are the chief crops. A large number of tenancies are described in the landlords' papers as *utbandi*, but the term here seems to connote a terminable lease unaccompanied by any written document rather than a floating tenancy with a rent varying according to the area actually cultivated in each particular year. The term is also applied to ordinary under-raiyati tenancies, both cash and produce paying. Sufficient information was gathered about these tenancies during khanapuri and bujharat to make it clear that the so-called *utbandi* tenancies comprised many different grades and classes, all of which could not possibly be real *utbandi* according to the accepted interpretation of the Tenancy Act. It was obvious that attestation would give considerable difficulty and it was apprehended that the existing rules might not cover all doubtful cases. Attestation camps were, therefore, opened in several circles towards the middle of the rains. Under the orders of the Settlement Officer some of these camps in the end devoted themselves entirely to inquiries into the fluctuations and incidents of typical *utbandi* tenancies. The progress made (42 square miles) was not therefore great and many khatians had again to be revised, but the

experience gained in experimental attestation afforded an opportunity for the provisional settlement of the treatment to be accorded to the main types of *utbandi* tenancy, and enabled a good start to be made in the ensuing field season.

The Settlement Officer has already begun the economic inquiries for which a special request was made in Government letter No. 9340, dated the 12th December, 1918, and from an examination of the history of over 4,000 families, has come to the conclusion that the annual mortality is 2 per cent. He calculates the income per head required at present prices to keep a family above actual want as Rs. 50, and finds that in the southern area 33 per cent. of the families, and in the northern area more than 50 per cent., must be assigned to this class. Indebtedness ranges between one-fifth and three-fifths of the annual income of each family. As the Settlement Officer remarks; the figures would seem low in Dacca or Faridpur, but the *utbandi* lands do not form a good security and the indebtedness of the poorer families is limited by their credit.

The diara area covered a strip about 2 miles wide on each side of the Revenue Survey course of the Bhagirathi. Municipalities outside the jurisdiction of the Nadia district were excluded except in so far as was necessary to complete the records of Revenue Survey mauzas parts of which lay inside and parts outside the municipal area.

In connection with this area the Settlement Officer notes two interesting facts. In mauza Matiari, police-station Kaliganj, metal-work to the value of 3 lakhs is turned out annually. Every house is a factory. The large *char* formations, 4 or 5 miles north of Hughli town, are colonised by immigrants from Tippera and retired up-country labourers from the mills.

As in other settlements, the season was phenomenally unhealthy and in November and December every report from a circle camp which he opened increased the Settlement Officer's feeling of despair. Hardly one of the Circle Officers and kanungos escaped at least two attacks of fever, and in many *halkas* out of an average of 13 amins recruited only two or three were working week after week. The diara sheets were received very late and, very few of the villages being of recent formation, plots were small and all stages were more complicated than in many villages of the interior. Kistwar was still going on round Navadwip in July and having regard to all the handicaps not the least of which was the weak health of Mr. Newton, the Technical Adviser, it is a subject for congratulation that the staff did in the end accomplish its full programme before the Pujas.

46. **Inspection of Cadastral Survey and Khanapuri.**—The following statement gives figures for each major settlement. The system of field bujharat is now established in all settlements and every plot is tested by the kanungo on the ground :—

	Number of linear miles of *partal* per square mile.	
	By whole staff.	By officers only.
Bankura	3·6	·24
Jessore	3·6	·14
Nadia	4·2	·06

It will be noted that the quantity of *partal* obtained in each settlement was well above the standard of 2 miles to a square mile.

Minor Operations.

47. **Hooghly and Howrah.**—The work in both districts is under one officer, Babu Kshitish Chandra Haldar, who is to be congratulated on his recent appointment to the Provincial service. A senior Settlement kanungo was deputed to Hooghly for three months and to Howrah for one month for field bujharat.

48. **Hooghly.**—There was no estate under re-settlement of land revenue, and no additions were made to the programme of advances recoverable operations during the year, but after bujharat and attestation final records were completed for an area of 3¼ square miles. The records of two other estates were finally published, in one of which, with an area of 2 square miles,

costs were also recovered. Three hundred and seventy-eight cases under section 105, Bengal Tenancy Act, and 63 cases under section 106, Bengal Tenancy Act, were instituted, of which 352 cases under section 105 and 37 cases under section 106 were disposed of. Only 5 appeals have been filed against the Assistant Settlement Officer's decisions, all of which are pending.

The programme for the year has been completed except for the fact that an area of $1\frac{3}{4}$ square miles in one estate has not yet been finally published. The programme is up to date and the expenditure is within the sanctioned estimate. Rent-free and *mukarrari* claims continued to be the special feature. Out of 3,132 interests attested 588 were recorded as rent-free and 206 as raiyati holdings with fixed rent.

49. **Howrah.**—There was one Government estate under Land Revenue Settlement, Mahal Balichak, Tauzi No. 3447. The *ijaradar* who had taken settlement in 1902 for 20 years was continually in arrears. The lease in consequence was cancelled and the estate brought under *khas* management. In the new record now ready for final publication, the previous classifications of land were cut down from 18 to 8, and these were assessed at uniform rates. The 21 appeals filed were disposed of in August. The revenue has increased from Rs. 3,032-5-4 to Rs. 4,527-11. Of the 5 estates under Advances Recoverable Operations, the record for estate Debattar Singhabahini was abandoned as the applicant died and his sons did not want to proceed with the case. Otherwise the programme for the year is in arrears only in respect of estate Kumar Chak, of which final publication has been delayed. Two hundred and ninety-three cases under section 105, Bengal Tenancy Act, and 109 cases under section 106, Bengal Tenancy Act, were instituted during the year, of which 227 cases under section 105 and 48 cases under section 106, have been disposed of. The remaining work is confined to the disposal of the pending cases of Mahal Jagadispore and Nawabpore and any that may yet be instituted in Mahal Kumar Chak. The expenditure is within the sanctioned estimate.

50. **24-Parganas.**—Records were in course of preparation for seven estates, two of which were Government estates. Applications in regard to new estates were rejected on the ground that the District Settlement would begin in 1922. The records of tauzis 2998, 25, 239 and 1263 were completed and final reports submitted. The cases under sections 105 and 106 of the fifth estate, Tauzi No. 3040, were disposed of, of the sixth, Tauzi No. 2968, the rent-roll was confirmed, and the records of the remaining estate, Tauzi No. 2653. Lot No. 16, which is also a Government estate, reached the stage of draft publication. If the proposals in the rent report are approved, the revenue will rise from Rs. 2,662 to Rs. 4,085. The programme, therefore, is practically up to date. The most important item of work during the year was the disposal of cases in estate Amirpur (Tauzi No. 3040). There were 81 suits under section 106 and 350 applications under section 105, Bengal Tenancy Act. Of the cases under section 105, compromise was effected in 84, 73 were disposed of *ex parte*, 31 were withdrawn, and 40 contested. The rest were dismissed or struck off for default. Of the cases under section 106, Bengal Tenancy Act, 35 were contested, 23 were compromised and the rest otherwise disposed of. Even the cases subsequently compromised were severely contested. The officer in charge was a first grade Deputy Collector and the cost exceeded the original estimate on this account.

51. **Khulna.**—The final reports of the two tenures of the Syedpore Trust Estate were submitted to Government with this office letter No. 6163, dated the 4th September, 1919. The case of Government Estate Boyarsingha has not yet been disposed of. It is understood that the question of the settlement of spill area is under the consideration of the Irrigation Department. It will probably, therefore, stand over till the Khulna District Settlement is taken up. There is no other work on hand and the Petty Settlement office has been closed.

52. **Dinajpur.**—The two private estates, Tauzi Nos. 511 and 190, which were taken up last year, were completed during the year. There were 379 cases under section 105, Bengal Tenancy Act, and the rent increased from Rs. 1,087 to Rs. 1,445 or by 32·93 per cent. The sanctioned estimate was not exceeded.

53. **Faridpur.**—Babu Brojendra Nath Das Gupta continued to be in charge. Records were completed for four Government and temporarily-settled estates (Tauzi Nos. 380, 4004, 6338 and 6369) which were pending at the close of the last settlement year. The amount of land revenue increased from Rs. 13,820 to Rs. 19,320. Fluvial action has improved the fertility of the lands, and compared with the rates in adjoining villages the rents were unduly low. Copies of the finally published records were distributed in all these estates, but the vandyked maps have not yet been received for all estates. Another Government Estate (Tauzi No. 6513) with an area of 3 square miles was added to the programme and completed up to attestation. It went under water before the objections under section 103A could be disposed of and will be finished this year.

54. **Malda.**—A small Government Estate (Nischintapur, Tauzi No. 186) was taken up by the Collectorate staff. The rent-roll is under draft publication.

Mathurapur Estate.—The settlement of Mahal Enaitpore, Tauzi No. 60 of the Malda Collectorate, was completed during the year. One thousand three hundred and seventy-five cases under section 105 and 31 cases under section 106, Bengal Tenancy Act. were disposed of after a protracted hearing by a Munsif Assistant Settlement Officer, while 18 cases under section 106 were transferred to the Civil Court. The estate claimed that the wholesale enhancements in 1902-1904 were justified under section 29 of the Bengal Tenancy Act, because the tenants were then released from the obligation of growing indigo, but the Court was unable to hold on the evidence that the rates in force up to that date had ever been fixed at an especially low level on that account though it might be true that but for the liability to grow indigo they would have been enhanced many years before. In fact, in some cases, half those rates had been paid for lands actually growing indigo, and it was difficult to believe in a double reduction. The gross expenditure exceeded the estimate by 60 per cent., but the large sum realized in court-fees amounting to Rs. 6,139 reduced the net expenditure to close on the estimated figure.

55. **Mymensingh (Minor).**—At the end of last year three appeals were pending in estate 5176. These were disposed of and the records were printed and finally published. The other two estates in the programme are of very minor importance.

56. **Maintenance of records.**—There were two different schemes, one for Mahal Enaitpur, Tauzi No. 60 (Mathurapur Estate) in Malda, and the other in Fatehsingh, Tauzi No. 253, in the district of Murshidabad.

Fatehsingh in Murshidabad.—The scheme of maintenance sanctioned under section 158 of the Bengal Tenancy Act was in its second year's working. The Special Officer, Maulvi Abdul Latif Chaudhury, completed the programme in 3 months and 10 days, and in addition, discharged the duties of Certificate Officer until he was replaced by Maulvi Ekramuddin in July.

Changes made in the previous year had increased the number of khatians to 12,271, to which a further addition of 63 was made. Changes affecting 2,093 tenancies were registered. The percentage of interests affected was therefore 17 as against 9·4 of the previous year. The increase is attributed chiefly to the epidemic of influenza.

Changes due to	inheritance numbered	1,645
,, ,,	recognised transfers numbered	209
,, ,,	transfers treated as recognised under section 139, B. T. Act numbered	19
,, ,,	unrecognised transfer numbered ...	77
,, ,,	auction sales for arrears of rent numbered	25
,, ,,	surrender numbered	7
,, ,,	abandonment numbered	22
,, ,,	re-settlement after *khas* possession numbered	6
,, ,,	new settlement numbered	13
,, ,,	changes in area accompanied by changes in rent numbered	36
,, ,,	alterations in cess numbered	9
,, ,,	other causes numbered	25
	Total ...	2,093

The Officer in charge was not altogether satisfied with the attention received from the Nawab Bahadur's staff, and the preliminary lists of changes which the landlord is called upon to file according to the rules were often inaccurate. Nevertheless the entire programme was completed in good time, and the total expenditure did not exceed Rs. 1,940.

Mahal Enaitpore.—A similar scheme had been sanctioned for the 10 annas share of the Enaitpore Mahal in Government letter No. 2982 of the 22nd March, 1918, in order that the certificate procedure already in use for the share directly under the Court of Wards might be applicable to the whole estate. Babu Upendra Kumar Mitra, Sub-Deputy Collector and Assistant Settlement Officer, was selected to carry through the first year's working under the supervision of the Settlement Officer of Rajshahi.

The number of tenancies affected was 2,340 and changes were made in 456 tenancies or a little more than 19 per cent. The reasons for change are classified as follows :—

Inheritance	367
Unrecognised transfers of entire holdings	20
„ „ of part „	62
Recognised transfers (including amalgamation)	3
New settlements	3
Escheat for want of heirs	1
Total ...	456

Eight corrections were made in the maps.

The entire programme was completed in a month and the total cost incurred was Rs. 645-9-9. Next season the work will be done by the Collector's staff under the supervision of this Department. Some additional villages in the Diara block of the Rajshahi settlement will be included in the programme.

Neither in Fatehsingh nor in Mathurapur was the attendance of parties satisfactory. To some extent the difficulty was obviated by the fact that the records were revised in a large number of sub-camps, but a certain number of non-resident tenants will always be found, and it is possible that, in future, recourse will have to be made more freely to the coercive powers with which the Maintenance Officers are entrusted. It should not be impossible in most cases for the non-resident tenants to appoint some resident tenant as their agent to look after their interests from year to year.

Judged by results the provision for draft publication seemed somewhat superfluous. There was no objection in Fatehsingh and only one in Mathurapur. This was of the nature of a title dispute and the objector was referred to the Civil Court.

The two sets of detailed rules hitherto in force for these operations have now been amalgamated with a view to making them applicable to all estates coming under the provisions of section 158 of the Tenancy Act and the orders of Government are under issue. One point of difference will, however, remain in that in Fatehsingh, the khatians of under-raiyats are not maintained, whereas in Mathurapur they are.

PART II.

57. **Final Reports.**—The final reports on the Noakhali and Mymensingh Settlements were received in the course of the year. Both are ready for submission to Government. Of those received last year, the final report of Midnapore was published, but the preparation of an Appendix volume containing important correspondence and documents, has delayed the issue to the public of the Jalpaiguri report, which was submitted to Government in June. Final reports of the following Minor Operations were also received during the year.

(1) Final report on the settlement of side lands of the Grand Trunk Road, in the districts of Hooghly and Burdwan by Babu Satamanyu Mukharji, Deputy Collector.

(2) Final report on the estates Dihi Lalpore, Datia Anantapur, Dihi Bali (Nadia), and Dihi Mandalshar in the district of Murshidabad by Babu Abinash Chandra Banarji, Deputy Collector.

(3) Final report on Debipur, Tauzi No. 25 and Madrasa, Tauzi No. 2998, in the district of the 24-Parganas by Babu Biswes war Bhattacharji, Deputy Collector.
(4) Final report of Gilatala and Bil Pabla, in the district of Khulna by Babu Rash Behari Mukharji, Deputy Collector.
(5) Final report of Gopalpur and Sambalpur, in the district of Dinajpur by Maulvi Abdul Majid, Deputy Collector.
(6) Final report on the Revisional Operations, in pargana Fatehsingh by W. H. Nelson, Esq., I.C.S.

58. **Strength of the Kanungo Establishment and Training of Probationers.**—The number of kanungos on the list on 1st October 1918 was 265. There were 14 promotions to the Subordinate Executive Service, and 6 kanungos either resigned or had to be discharged. One kanungo obtained an appointment as District Agricultural Officer and another joined the staff of the Improvement Trust in Calcutta. There was one death during the year. In order to fill the vacancies 27 candidates were selected for the training camp which was organised at Berhampore in August and September by Mr. Pringle, the Settlement Officer. After arranging for the necessary deputations to the petty settlements of Kalimpong, Bakarganj and Faridpur, 25 of these were distributed among the settlements as probationers.

59. **Training of Junior Officers.**—The Training Camp was located this year in village Bogra on the Grand Trunk Road between the Railway stations of Raniganj and Kalipahari. In the continued absence of many junior members of the Indian Civil Service on military duty, the only officers that could be spared to attend the camp were two Indian members of the Indian Civil Service and seven members of the Provincial Service. There were also five Deputy Superintendents of Police and two members of the Court of Wards. Mr. Robertson, the Settlement Officer of Bankura, was in charge and earned the thanks of Government for the unsparing trouble he took to make the training both profitable and pleasant. The material was quite up to the average, and it is believed that all the Officers benefited from the experience.

60. **Training of Munsifs.**—Five Munsifs completed their usual period of training in May and reverted soon afterwards. The sixth Munsif recruited in 1917 left the department at an earlier date. All these officers acquired a thorough knowledge of the settlement procedure, which will be of considerable assistance to them in their judicial work. Six new Munsifs joined the department at the beginning of the field season, 1918-19.

61. **Jurisdiction.**—The completion report of the demarcation and relay of boundaries between the district of Midnapore and the Moharbhanj State was received during the year. Masonry pillars have been constructed and maps showing their position were prepared and forwarded to the Director of Surveys.

Jurisdiction Lists of 25 thanas were published in the course of the year, while 40 notifications affecting the jurisdiction of different police-stations were checked in this office. The changes in the boundaries of Faridpur, Jessore and Khulna owing to the deflection of the Madhumati were defined and notified.

62. **Maintenance of Boundary Marks.**—The numbers of pillars erected and checked during the year will be found in Appendix X. Sixty-five per cent. of the registered marks have been checked, of which 2 per cent were found damaged and 8 per cent. missing. There has been no case of the wilful destruction of a boundary pillar, and on the whole the instructions in the Manuals are properly observed.

The settlement operations in the districts of Mymensingh, Midnapore, and Rajshahi being practically complete, arrangements had to be made for distributing the marks to chaukidars, dafadars and panchayats. In Dacca, the Circle Officers will take charge of the maintenance of traverse stones, and with the gradual extension of the circle system there is every reason to hope that the difficulties in this respect experienced hitherto will disappear. In Jalpaiguri the Deputy Commissioner is revising the previous arrangements for the proper care of all marks left by the Settlement Party.

63. **Utilisation of Settlement records and maps.**—The Collectors of all districts in which finally published records are available report a steady

extension of the use to which these records are put in all administrative departments, and even in those areas where the record-writing is in its preliminary stages, extracts and copies are frequently produced by parties both in the civil and criminal courts. Nevertheless, considerable improvement is still possible especially in the matter of land acquisition. The increasing popularity of the settlement records and maps with the public is evidenced by the statistics of sales. During the year under review 1,409,253 copies of khatians and 9,036 plot indexes were sold to the public and 8,28,844 interests and 6,543 plot indexes were made over to Government Officers. In the matter of maps also the returns were satisfactory. Fourteen thousand two hundred and fifty-one cadastral maps, 2,374 thana maps and 39 district maps were sold to the public, while 7,792 village maps, 57 district maps and 5,543 thana maps were issued on public service. The total income derived from the sale of records and maps amounted to Rs. 55,994 in cash and Rs. 23,496 in court-fees. Mymensingh was again the most enterprising district in this respect, no less than 442,712 copies of khatians being sold. Further details as regards maps will be found in Appendix XI and as regards records, in Appendix XII.

64. **Diara Proceedings.**—As has been observed in previous paragraphs, the diara proceedings in Mymensingh and Rajshahi have been the chief obstacle to the punctual winding up of the operations. From this point of view the Settlement Officer of Tippera-Noakhali was fortunate in finding no work of this nature in his last two blocks. The procedure is elaborate and tedious, but the Diara Officers have reason to be satisfied with the results of their work. There is hardly a case in which the Board have not accepted the proposals of the Settlement Officers almost without modification, and the cases which have come before the Civil Courts from the earlier settlements have received favourable treatment.

65. **Judicial Work of the Director.**—In connection with the 114 Government and temporarily-settled estates for which confirmation reports were received during the year 327 appeals were filed, while 1,558 were pending from last year. One thousand eight hundred and seventy-nine were disposed of and 6 remain pending. The great majority of the appeals related to the proceedings under section 112 in the Silda pargana of Midnapore.

66. **Tours.**—I spent 130 days on tour and Mr. Nelson 3. All the Major Settlements were visited on at least two occasions, and Jessore and Nadia five or six times. In each settlement the inspections included visits to mufassal camps, khanapuri, attestation, recovery, or case-work, as the case might be.

67. **Promotions and prospects.**—During the year under report two Sub-Deputy Collectors, Babu Kasiswar Chakrabarty and Babu Abinash Chandra Banarji, were promoted to the Provincial Service and 14 specially selected kanungos were appointed Sub-Deputy Collectors with a view to working eventually as Circle Officers. My Personal Assistant, Babu Bijay Bihari Mukharji, was awarded the title of " Rai Sahib " in recognition of his valuable work in the Midnapore Settlement. In pursuance of the arrangements made last year to avoid the retention of any officer on settlement duty for an unduly long period, ten Deputy Collectors and four Sub-Deputy Collectors were permanently reverted to general duties. They included Khan Sahib Kabir-uddin Ahmad, Babu Sudhir Chandra Ghose, Babu Satamanyu Mukharji and many others whose names will long be remembered in the districts in which they have worked.

68. **Settlement Staff.**—The staff for the year comprised 4 members of the Indian Civil Service, 1 member of the Provincial Service holding a listed appointment, 22 Deputy Collectors, 13 Munsifs, 46 Sub-Deputy Collectors and 1 Technical Adviser of the Bengal Survey Department. No Civilian was available to serve as Charge Officer in any of the major operations. There were two regrettable casualties—Maulvi Minnat Ali, Sub-Deputy Collector, who did excellent work in *jamabandi* and diara in Midnapore, succumbed to a sudden attack of influenza, and Maulvi Muzammal Huq, a new Sub-Deputy Collector of promise, died in Jessore. I have already referred in previous paragraphs of the report to the disastrous effects of influenza and fever in all three settlements in which field work was in full swing. The difficulty of completing the annual programme in a district saturated with malaria has

been realistically described by Mr. Milligan in his final report on the Jalpaiguri Operations, but I doubt if even in his worst season conditions were as bad as in Jessore and Nadia during this unhealthy year. Cholera and malaria are always endemic in Jessore and Nadia, but it was disappointing that Bankura should have suffered nearly as severely. But for the sympathy and patience which all three Settlement Officers displayed to a very high degree, their debilitated and harassed staffs could never have found courage to complete the heavy programmes. Mr. Pringle toured incessantly in Nadia until he was forced to take a holiday to England in January, and as he remarks it was a career of sick-bed visitation rather than of field inspection. He had no Charge Officer and his Technical Adviser was for the most part ill. Mr. Philpot worked hard and unselfishly during the months he was in charge. Mr. Robertson in Bankura had to meet the demands of the training camp, and the distance of his head office in Bankura from the scene of his cadastral and bujharat programme was a heavy handicap. Nevertheless his field inspections were well distributed and searching. Khan Bahadur Abdul Momen in Jessore had the heaviest programme of all. It is true he had a very large staff, but he organised it with striking ability and this settlement has now recovered from a very unfortunate start. Mr. Thompson before he went on leave in September finished the final reports both of Noakhali and Tippera. He has served as Settlement Officer in four major settlements, and no officer of his seniority has done better work for the department. Mr. Nelson, who made over charge of the Rajshahi operations which he had controlled from the beginning, in November last, has maintained the excellent record of that settlement to the end. All the Charge Officers enhanced their previously high reputations, and tribute has been paid to their work in dealing with their respective settlements. Of the many other Officers not previously mentioned who have done particularly well this year the following deserve special mention :—

Deputy Collector.

Babu Jamini Prasanna Ray.

Sub-Deputy Collectors.

Babu Amulya Kumar Guha.
„ Chinta Haran Das Gupta.
Maulvi Shamsuzzoha Ahmad.
Babu Pramatha Nath Datta.
„ Jogesh Chandra Mitra.
„ Girish Chandra Das.
„ Anath Bandhu Chatarji.
„ Janaki Bhusan Singh.
„ Lal Mohan Basu.
„ Sati Prasad Gangali.
„ Surendra Nath Sen Gupta.
„ Rai Charan Pal.
„ Prabhat Chandra Banarji.

Babu Mahendra Nath Gupta, Deputy Collector, gave up the appointment of Personal Assistant after five and a half years' valuable services in January. His place has been ably filled by Rai Sahib Bijay Bihari Mukharji, who has laboured incessantly in the interests of the Department.

In conclusion, I desire to convey my thanks to Mr. O'Donel who was in charge of the Survey Department during the absence of Major Hirst, as also to the Collectors who have been in charge of the districts without a whole-time Settlement Officer, for their ungrudging help.

I have the honour to be,

SIR,

Your most obedient servant,

F. A. SACHSE,
Director of the Department of Land Records, Bengal.

APPENDICES.

[*N.B.*—Figures in these Appendices which do not agree with those in the last year's Report are revised figures.]

APPENDIX I.

Progress of Survey and the preparation of a record-of-rights in the Province.

Name of District.	Area (excluding large rivers).	Reserved Forests.		Unsettled waste at the disposal of Government.		Settled area to which the Bengal Tenancy Act has not been extended.		Settled area to which the Bengal Tenancy Act has been extended.			
									Area in which a record-of-rights		
		Area.	Scale and date of Survey.	Area.	Scale and date of Survey.	Area.	Date of cadastral Survey under other Acts.	Total.	Has been finally published.	Is in course of preparation.	Remains to be prepared.
1	2	3	4	5	6	7	8	9.	10	11	12
Burdwan ...	2,678	...	...	...	...	...	...	2,678	99	...	2,579
Birbhum ...	1,740	...	...	...	...	...	...	1,740	209	...	1,531
Bankura ...	3,244 (a)	...	...	...	...	...	...	3,244	51	1,771	1,422
Midnapore ...	5,056	...	...	...	...	...	...	5,056	5,056	...	...
Hooghly ...	1,213	...	...	...	...	...	...	1,213	58	2	1,153
Howrah ...	510	...	...	...	...	...	...	510	2	5 2 (b)	503
24-Parganas ...	4,844	1,758	...	1,191	...	...	...	1,895	110 67 (b)	3	1,782
Calcutta ...	8	...	...	...	...	8	1911 in respect of 4 square miles.	...	...	...	...
Nadia ...	2,725	...	...	...	...	...	...	2,725	183 (f) 27 (b)	953 28 (g)	1,589
Murshidabad ...	2,143	...	...	...	...	...	...	2,143	169	...	1,974
Jessore ...	2,915	...	...	...	...	...	...	2,915	82	1,457	1,376
Khulna ...	4,765	2,089	...	...	...	...	...	2,676	260	6	2,410
Dacca	2,832	...	...	...	...	...	...	2,832	2,832	...	...
Mymensingh ...	6,432	...	...	...	...	...	...	6,432	6,432 (h)	...	...
Faridpur ...	2,471	...	...	...	...	...	...	2,471	2,461 14 (b)	... 3 (b)	10 (e)
Bakarganj ...	3,490	131	16″=1 mile. District operations 1905-06.	516	16″=1 mile. District operations 1905-06.	...	...	2,843	2,843 14 (b)	...	...
Chittagong ...	2,492	564	4″=1 mile. District operations 1888-89.	486	16″=1 mile. District operations 1888-89.	...	...	1,442	1,374	...	68
Noakhali ...	1,649	...	...	...	...	...	...	1,649	3,506	642	...
Tippera ...	2,499	...	...	...	...	...	...	2,499			
Rajshahi ...	3,708 (c)	...	...	...	...	...	...	3,708	3,489	219	...
Dinajpur ...	4,132	...	...	...	...	...	...	4,132	519	...	3,613
Jalpaiguri ...	2,924	505	4″=1 mile. 1907-08.	...	..	382	4″=1 mile, 1907-1910.	2,037	2,037	...	...
Rangpur ...	4,090	...	...	...	...	...	...	4,090	143	...	3,947
Bogra ...	1,359	...	...	...	...	...	...	1,359	53	...	1,306
Pabna ...	1,839	...	...	...	...	...	...	1,839	68 (d)	...	1,771
Malda ...	1,832	...	...	...	...	...	...	1,832	96	... 8 (b)	1,736
Darjeeling ...	1,164	436	4″=1 mile. 1905.	22	...	706	Kalimpong 1902-03, Siliguri 1897-98, West Tista 1906-07, Act V of 1875.	...	...	...	...
Total ...	74,754	5,483		2,215		1,096		65,960	32,132 122	5,058 41	28,770

(a) Including Asansole Subdivision of the district of Burdwan.
(b) Revisional.
(c) Including diara strips of Pabna, Nadia and Murshidabad.
(d) River strips done from Faridpur.
(e) Area transferred from Jessore.
(f) Includes the area done by the Settlement Officer, Rajshahi.
(g) Being done by the Settlement Officer, Rajshahi.
(h) Including diara strips of Rangpur, Pabna, Bogra and Tippera.

APPENDIX II.

Progress and cost in district operations during the year ending 30th September 1919.

District Mymensingh—commenced 1907. Estimated area 6,693 sq. miles. 7 Blocks

Branch of work.	Unit of report.	Progress. For year under report. Programme according to sanctioned programme for whole operation.	Progress. For year under report. Performance.	Progress. Up to date. Programme according to sanctioned programme for whole operation.	Progress. Up to date. Performance.	Cost (including book debit and indirect charges). For year under report. Estimated expenditure according to sanctioned estimate for whole operation.	Actual expenditure.	Actual cost rate.	Cost (including book debit and indirect charges). Up to date. Estimated expenditure according to sanctioned estimate for whole operation.	Actual expenditure.	Actual cost rate.	Cost rate to which sanctioned estimate for whole operation works out.	Standard cost rate for 2-block, 3-block district, etc. (as the case may be).
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral survey	Square miles	...	...	...	6,432	...	...	...	6,27,966	6,25,847	97	94	145
Khanapuri	Ditto	...	...	...	6,432	...	...	...	2,26,376	2,29,120	36	34	39
Initial recess	Plots	...	...	...	5,658,776	...	...	...	...	...	...	...	...
Bujharat	Square miles	...	...	...	6,432	...	...	...	1,01,204	1,00,833	16	15	18
	Ditto	...	...	...	6,432	...	...	...	5,05,803	4,82,102	75	75	94
	Plots	...	...	...	5,699,535	...	...	...	...	...	...	...	...
	Interests	...	...	...	1,703,921	...	...	...	...	...	...	...	...
Attestation	Square miles	...	...	...	6,423	...	...	...	3,89,266	3,94,759	61	58	86
	Interests	...	...	...	1,709,472	...	...	...	...	...	...	...	...
Draft publication	Square miles	...	...	...	6,423	...	...	...	...	...	...	...	...
Objections	Ditto	...	...	...	6,423	...	...	...	144,801	91,794	14	22	27
	Cases	...	...	...	68,017	...	...	...	...	...	...	...	...
Final office work—													
Panch	Square miles	...	...	...	6,423	...	...	...		81,166	13	13	20
Statistics	Ditto	...	...	...	6,423	...	...	...		37,166	6	6	10
16" maps	Ditto	...	...	...	6,423	...	...	...	4,19,207	47,068	7	8	6
Topographical maps	Ditto	...	...	...	6,423	...	...	92		10,883	2	1	2
Final records	Ditto	...	64	...	6,423	...	5,907	...		2,73,910	43	33	54
Computation and recovery	Interests	...	20,000	...	1,666,616	...	...	...		...	...	...	...
Final publication	Square miles	...	122	...	6,423	...	5,804	48	1,05,091	96,530	15	26	29
Case work—	Ditto	...	96	...	6,423	...	...	...	...	...	...	...	...
Section 105	Ditto	...	560	...									
,, 106	Tenancies	...	17,250	...									
	Square miles	...	...	...	6,363	...	12,559	22	1,74,612	1,36,064	21	26	16
	Cases	...	387	...									
,, 108A	Square miles	...	...	...									
	Cases	...	568	...									
,, 40	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
	Cases	...	...	...	...	...	...	...	...	...	...	...	...
Jamabandi	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
Diara	Ditto	...	...	...	...	...	20,162	...	43,383	49,651	...	...	...
Operations under section 112	Ditto	...	...	...	...	...	...	...		13,139	...	...	...
Municipalities	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Supervision	.....	...	...	...	...	...	...	...	...	...	...	...	...
Demarcation	.....	...	...	...	...	29,005	36,189	...	9,15,645	8,61,564	...	...	...
Supplies, services and contingencies—									...	24	...	...	...
(1) Ordinary	.....	...	...	...	...	3,000	3,667	...	4,96,516	3,81,615	...	...	...
(2) Press	.....	...	...	...	...					1,17,446	...	...	...
Director of Land Records' control	.....	...	...	...	...	...	1,934	...	64,732	65,111	...	...	...
Total	.....	..	...	...	...	...	...	...	...	...	...	...	...
Special work	.....	...	...	...	...	...	...	...	..	...	...	...	...
GRAND TOTAL	.....	...	...	...	...	32 005	86,222	...	41,86,602	40,95,792	...	...	...

APPENDIX II—*contd.*

Progress and cost in district operations during the year ending the 30th September 1919.

District Midnapore, commenced 1911-12. Estimated area 4,140 sq. miles, 5 blocks.

Branch of work.	Unit of report.	Progress: For the year under report. Programme according to sanctioned programme for whole operation.	Progress: For the year under report. Performance.	Progress: Up to date. Programme according to sanctioned programme for whole operation.	Progress: Up to date. Performance.	Cost (including book debit and indirect charges): For year under report. Estimated expenditure according to sanctioned estimate for whole operation.	Cost: For year under report. Actual expenditure.	Cost: For year under report. Actual cost rate.	Cost: Up to date. Estimated expenditure according to sanctioned estimated for whole operation.	Cost: Up to date. Actual expenditure.	Cost: Up to date. Actual cost rate.	Cost rate to which sanctioned estimate for whole operation works out.	Standard cost rate for 2-block, 3-block district, etc. (as the case may be).
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral Survey	Square miles	...	...	4,140	4,140								
Khanapuri	Ditto	...	...	4,140	4,140	...	...	...	5,34,491	5,34,427	129	129	115
Initial Recess	Plots	...	...	5,953,417	5,953,417	...	...	...	...	...	...	...	47
Bujharat	Square miles	...	...	4,140	4,140	972	1,369	...	1,98,742	2,08,378	50	48	18
	Ditto	...	...	4,140	4,140								
	Plots	...	...	5,958,688	5,958,688								
	Interests	...	...	1,745,763	1,745,763								
Attestation	Square miles	...	...	4,140	4,140	...	...	...	3,90,004	3,93,172	94	94	95
	Interests	...	...	1,745,763	1,745,763								
Draft publication	Square miles	...	...	4,140	4,140	...	...	...	...	...	...	...	91
Objection	Ditto	...	...	4,140	4,140	...	...	...	50,308	51,891	12	12	27
	Cases	...	...	94,808	94,808								
Final office work—													
Janch	Square miles	...	...	4,140	4,140	1,440	365	...	1,62,617	1,62,241	39	39	20
Statistics	Ditto	230	230	4,140	4,140	1,900	1,198	5·20	51,330	42,783	10	12	10
16″ maps	Ditto	15	15	4,140	4,140	...	...	...	21,259	10,978	3	5	6
Final records	Ditto	290	290	4,140	4,140	18,075	11,927	41·12	2,63,469	2,40,966	58	64	95
	Interests	87,000	87,000	1,774,173	1,774,173								
Computation and recovery	Square miles	290	290	4,140	4,140	28,764	19,793	68	95,088	1,05,896	25	23	29
Final publication	Ditto	290	290	4,140	4,140								
Cash work—													
Section 105	Ditto	1,423	1,572	4,095	4,013								
	Tenancies	71,163	66,090	200,000	194,927								
Section 106	Square miles	1,423	1,572	4,095	4,013								
	Cases	2,720	2,725	6,000	6,005								
Section 40	Square miles	1,423	1,572	4,095	4,013	87,911	73,955	47	1,19,767	1,58,399	38	29	16
	Cases	2,653	1,911	7,000	6,272								
Section 108A	Square miles	3,290	1,377	4,140	2,227								
	Cases	4,384	2,074	5,000	2,690								
Jamabandi	Square miles	45	45	45	45	...	...	...	10,044	9,113	...	...	...
Diara	Ditto	...	...	1	1	...	147	...	8,058	9,341	...	...	..
Operations under section 112	Ditto	236	236	236	236	...	2,880	12	26,604	44,010	...	...	...
Municipalities	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Supervision	.....	...	...	...	...	19,707	23,409	...	4,03,187	4,07,710	...	...	...
Supplies, services and contingencies—													
(1) Ordinary	.....	...	...	...	...	28,694	17,835	...	3,77,167	4,22,082	...	...	...
(2) Press	.....	...	...	...	...	3,640	540	...	1,72,921	1,39,220	...	...	...
Director of Land Records' Control	.....	...	...	...	...	3,378	2,160	...	38,022	40,396	...	...	...
Winding up	.....	..	...	...	...	...	...	...	24,000	...	...	...	...
Total	.....	...	...	...	...	1,94,481	1,55,579	...	29,47,078	29,81,003	...	...	...
Special work	.....	...	...	...	...	...	...	...	...	...	...	...	...
Grand Total	.....	...	...	...	...	1,94,481	1,55,579	...	29,47,078	29,81,003	...	...	...

APPENDIX II—*contd.*

Progress and cost in district operations during the year ending 30th September 1919.

District Rajshahi—commenced 1912. Estimated area, 3,820 square miles. (Including Pabna, Nadia and Murshidabad river strips)—5 Blocks.

Branch of work.	Unit of report.	Progress. For year under report. Programme according to sanctioned programme for whole operation.	Progress. For year under report. Performance.	Progress. Up to date. Programme according to sanctioned programme for whole operation.	Progress. Up to date. Performance.	Cost (including book debit and indirect charges). For year under report. Estimated expenditure according to sanctioned estimate for whole operation.	Actual expenditure.	Actual cost rate.	Up to date. Estimated expenditure according to sanctioned estimate for whole operation.	Actual expenditure.	Actual cost rate.	Cost rate to which sanctioned estimate for whole operation works out.	Standard cost rate for 2-block, 3-block district (as the case may be).
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral survey	Square miles	...	...	3,820	3,640	...	...	...	4,21,600	3,64,167	100	110	115
Khanapuri	Ditto	...	...	3,820	3,640	...	...	...	1,41,980	1,80,817	50	37	47
Initial recess	Plots	...	...	...	5,070,902	...	...	...	...	...	...	...	...
Bujharat	Square miles	...	...	3,820	3,640	...	...	...	67,160	49,726	14	18	18
	Ditto	...	...	3,820	3,640								
	Plots	...	...	...	5,217,242	...	...	...	3,33,580	3,90,450	107	87	95
	Interest	...	...	...	1,554,740								
Attestation	Square miles	...	...	3,820	3,640			...	2,35,100	3,08,271	85	61	91
	Interest	...	...	...	1,622,334	...	...						
Draft publication	Square miles	...	...	3,820	3,640	...	...	...	...	...	...	...	...
Objections	Ditto	...	12	3,820	3,640	...	76	6	90,260	59,493	16	24	27
	Cases	...	304	...	59,750	...	...	...	...	...	...	...	...
Final Office Work—													
Janch	Square miles	120	157	3,820	3,640	2,280	2,985	19	77,230	72,379	20	20	20
Statistics	Ditto	160	482	3,820	3,640	1,600	5,195	11	38,200	28,543	8	10	10
16" maps	Ditto	350	607	3,820	3,617	...	4,261	7	...	21,727	6	...	6
Topographical maps	Ditto	350	607	3,820	3,617	...	940	2	...	...	...	57	2
Final records	Ditto	350	545	3,820	3,541	20,300	...	...	2,18,114	10,998	3	...	95
	Interest	...	2,39,328	...	16,00,495	...	43,110	79	...	2,43,299	69	...	
Computation and recovery	Square miles	1,020	1,111	3,820	3,181	28,560	31,744	29	1,03,338	76,038	24	28	29
Final publication	Ditto	...	1,295	...	3,489	...	...	...	...	...	...	...	...
Case-work—													
Section 105	Ditto	...	1,365	...	...								
,, 106	Tenancies	...	40,730	75,724	65,115								
	Square miles	...	1,365	...	2,162								
,, 108A	Cases	...	2,826	4,840	3,773								
	Square miles	...	1,365	...	2,162	28,220	37,777	28	68,147	57,649	27	17	16
,, 40	Cases	...	167	683	631								
	Square miles	...	...	...	3,489								
	Cases	...	...	...	236								
Jamabandi	Square miles	...	...	...	...	...	3,572	...	...	4,215	...	...	...
Diara	Ditto	...	...	...	...	15,120	...	...	22,680	...	...	...	...
Operation under sections 112	Ditto	...	...	...	...	...	7,070	...	...	8,728	...	...	...
Municipalities	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Supervision	.....	...	...	...	...	39,287	52,331	...	5,15,098	4,98,734	...	...	...
Supplies, services and contingencies—											...	...	...
(1 Ordinary	.....	...	...	...	...	25,240	19,914	...	4,38,654	3,92,148	...	...	...
(2) Press	.....	...	...	...	...		23,610	...		1,21,515	...	...	...
Director of Land Records' control	.....	...	...	...	...	2,700	3,508	...	42,764	37,165	...	...	...
Total	.....	...	...	...	...	1,63,307	2,36,093	...	28 13,905	29,26,062	...	...	...
Special work	.....	...	...	...	...	...	4,396	...	22,000	43,749	...	...	...
Grand Total	.....	...	...	...	...	1,63,307	2,40,489	...	28,35,905	29,69,811	...	...	...

APPENDIX II—*contd.*

Progress and cost in district operations during the year ending 30th September 1919.

Districts Tippera and Noakhali—commenced September 1914. Estimated area, 3,200 square miles. 4 Blocks.

Branch of work.	Unit of report.	Progress. For year under report. Programme according to sanctioned programme for whole operation.	Progress. For year under report. Performance.	Progress. Up to date. Programme according to sanctioned programme for whole operation.	Progress. Up to date. Performance.	Cost (including book debit and indirect charges). For year under report. Estimated expenditure according to sanctioned estimate for whole operation.	Cost. For year under report. Actual expenditure.	Cost. For year under report. Actual cost rate.	Cost. Up to date. Estimated expenditure according to sanctioned estimate for whole operation.	Cost. Up to date. Actual expenditure.	Cost. Up to date. Actual cost rate.	Cost rate to which sanctioned estimate for whole operation works out.	Standard cost rate for 2-block, 3-block district, (as the case may be).
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Traverse by Settlement Officers	Square miles		6	...	34	...	144	24	...	842	25	...	...
Cadastral survey	Ditto	...	4	3,200	2,995	...	387	97	3,52,000	3,27,014	109	110	115
Khanapuri	Ditto	...	4	3,200	2,995	...	118	29	1,18,400	1,23,480	41	37	39
Initial recess	Plots	...	3,958	...	...	...	...	...	...	...	...	...	...
Bujharat	Square miles	...	4	3,200	2,995	...	59	15	57,600	46,288	15	18	18
	Ditto	375	23	3,200	3,014	32,250	995	43	2,75,200	2,71,544	90	86	94
	Plots	...	6,232	...	...	...	...	...	...	...	...	...	...
	Interests	...	1,974	...	...	...	...	...	...	...	...	...	...
Attestation	Square miles	375	183	3,200	3,014	24,750	13,508	74	2,11,200	1,49,251	50	66	66
	Interests	...	72,207	...	...	...	...	...	...	...	...	...	...
Draft publication	Square miles	...	281	...	3,014	...	...	...	...	...	...	...	...
Objections	Ditto	730	711	3,013	3,014	19,710	17,301	24	81,351	55,833	19	27	27
	Cases	...	16,193	...	...	...	...	...	...	...	...	...	...
Final Office Work—													
Janch	Square miles	730	711	3,013	3,014	10,950	16,810	24	45,195	37,823	29	15	20
Statistics	Ditto	700	1,374	2,450	3,014	10,500	6,116	4	36,750	17,946	6	15	10
16" maps	Ditto	717	1,490	2,450	2,963	5,736	6,290	4	14,700	13,072	4	8	6
Topographical maps	Ditto	717	1,279	2,450	2,771		2,831	2	4,900	5,200	2		2
	Ditto	717	1,235	2,450	3,014	38,718	80,092	65	1,32,300	1,76,095	58	54	54
Final records	Interests	...	414,100	...	...	...	...	...	...	...	...	...	...
Computation and recovery	Square miles	871	1,060	1,950	2,000	17,420	21,374	20	39,000	37,371	19	20	29
Final publication	Ditto	842	1,118	1,950	2,143	...	...	...	...	...	...	...	...
Case work—													
Section 105	Ditto	876	...										
,, 106	Tenancies	...	13,059										
	Square miles	876	...										
,, 108 A	Cases	...	313										
	Square miles	876	...	...	...	14,016	22,523	...	22,000	23,794	...	16	16
,, 40	Cases	...	870										
	Square miles	876											
	Cases	...	..										
Jamabandi	Square miles	52	48	318	264	2,600	7,167	149	15,900	22,343	88	50	...
Diara	Ditto	...	...	...	11	...	...	...	...	1,005	...	...	...
Operations under section 112	Ditto		...	..		...	...	...	...	...	...	...	...
Municipalities	Ditto		...	...	...	...	...	...	...	...	...	...	...
Supervision	.....		...	...	...	61,660	50,047	...	4,39,550	3,39,086	...	...	179
Supplies, services and contingencies	.....		...	...	...	24,323	60,784	...	2,69,791	4,07,440	...	...	97
(1) Ordinary	.....		...	...	...	...	...	...	...	...	...	...	...
(2) Press	.....		...	...	...	...	...	...	...	...	...	...	...
Director of Land Records' control	.....		...	...	...	5,900	5,235	...	43,050	26,880	...	...	15
Total	.....	...	...	...	...	2,68,533	3,11,783	...	19,08,653	21,33,008	...	...	...
Special work	.....	...	...	...	...	...	5,439	...	...	36,243	...	...	...
Grand Total	.....	...	...	...	...	2,68,533	3,17,222	...	19,08,653	21,69,251	...	...	...

APPENDIX II—*contd.*

Progress and cost in district operations during the year ending 30th September 1919.

District Jessore—commenced 21st October 1918. Estimated area, 2,900 square miles. 4 Blocks.

Branch of work.	Unit of report.	Progress. For year under Report. Programme according to sanctioned programme for whole operation.	Progress. For year under Report. Performance.	Progress. Up to date. Programme according to sanctioned programme for whole operation.	Progress. Up to date. Performance.	Cost (including book debit and indirect charges). For year under Report. Estimated expenditure according to sanctioned estimate for whole operation.	Actual expenditure.	Actual cost rate.	Up to date. Estimated expenditure according to sanctioned estimate for whole operation.	Actual expenditure.	Actual cost rate.	Cost rate to which sanctioned estimate for whole operation works out.	Standard cost rate for 2-block, 3-block district (as the case may be).
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral survey	Square miles	656	618	1,468	1,457	1,14,510	65,060	107	2,37,859	1,57,410	108	117	115
Khanapuri	Ditto	656	629	1,468	1,457	42,681	49,412	79	82,379	1,13,079	78	40	39
Initial recess	Plots	984,000	1,165,672	1,978,000	25,92,032								
	Square miles	656	629	1,468	1,457	27,066	16,655	26	52,559	28,659	20	26	18
Bujharat	Ditto	936	922	1,468	1,457								
	Plots	1,402,940	1,638,041	2,396,940	2,645,461	88,808	86,378	94	1,75,791	1,47,706	101	86	94
	Interests	561,600	629,351	8,10,100	1,003,941								
Attestation	Square miles	812	828	812	828	62,748	1,07,821	130	62,748	1,07,821	130	61	66
	Interests	575,000	650,036	5,75,000	6,50,036								
Draft publication	Square miles	812	656	812	656	...	...	...	...	...	...	...	...
Objections	Ditto	812	500	812	500	11,850	5,709	11	11,850	5,709	11	25	27
	Cases	10,237	7,812	10,237	7,812								
Final Office Work—													
Jamabandi	Square miles	630	121	630	121	6,600	6,842	57	6,600	6,842	57	19	20
Statistics	Ditto	656	629	1,468	1,457	...	4,427	7	...	8,972	6	...	...
16" maps	Ditto	...	...	...	...	...	174	...	...	174	...	...	...
Topographical maps	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Final records	Ditto	...	28	...	28	...	4,300	154	...	4,300	154	52	54
Computation and recovery	Interests	...	20,150	...	20,150								
Final publication	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Case Work—													
Section 105	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
	Tenancies	...	...	...	...	...	...	...	...	...	...	...	...
Do 106	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
	Cases	...	...	...	...	...	...	...	...	...	...	...	...
Do 108 A	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
	Cases	...	...	...	...	...	...	...	...	...	...	...	...
Do 40	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
	Cases	...	...	...	...	...	...	...	...	...	...	...	...
Jamabandi	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
Diara	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Operations under section 112	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Municipalities	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Supervision	.....	...	...	...	...	1,12,618	76,324	...	1,98,182	1,42,958	...	...	...
Supplies, services and contingencies—													
(1) Ordinary	.....	...	...	...	...	59,723	80,927	...	1,53,037	2,52,015	...	87	75
(2) Press	.....	...	...	...	...	32,500	20,481	...	39,800	20,481	...	22	22
Director of Land Records' control	.....	...	...	...	...	9,362	5,778	...	14,195	8,901	...	15	15
Total	.....	...	...	...	...	5,68,466	5,31,128	...	10,35,000	10,05,027	...	...	...
Special work	.....	...	...	...	...	...	...	...	...	...	...	...	...
Grand Total	.....	...	...	...	...	5,68,466	5,31,128	...	10,35,000	10,05,027	...	...	...

NOTE.—The programmed areas in columns 3 and 5 are those revised for 4 Block operations, but the estimated expenditure in columns 7 and 10 are given from the last sanctioned estimate which is awaiting revision.

APPENDIX II—*contd.*

Progress and cost in district operations during the year ending 30th September 1919.

District Bankura—commenced 31st October 1917 Estimated area, 3,238 square miles, 4 blocks—Including Asansole subdivision of the Burdwan District.

Branch of work.	Unit of report.	Progress. For year under report. Programme according to sanctioned programme for whole operation.	Progress. For year under report. Performance.	Progress. Up to date. Programme according to sanctioned programme for whole operation.	Progress. Up to date. Performance.	Cost (including book debit and indirect charges). For year under report. Estimated expenditure according to sanctioned estimate for whole operation.	Actual expenditure.	Actual cost rate.	Up to date. Estimated expenditure according to sanctioned estimate for whole operation.	Actual expenditure.	Actual cost rate.	Cost rate to which sanctioned estimate for whole operation works out.	Standard cost rate for 2-block, 3-block district, etc. (as the case may be).
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral survey	Square miles	797	800	1,765	1,771	90,805	1,02,232	128	1,94,305	1,88,652	107	114	115
Khanapuri	Ditto	797	800	1,765	1,771	27,098	33,166	41	64,798	62,298	35	39	39
Initial recess	Plots	797,000	1,047,647	1,765,000	2,074,045	13,549	20,500	22	30,949	34,037	19	18	18
Bujharat	Square miles	797	800	1,765	1,771								
	Ditto	797	800	1,765	1,771								
	Plots	797,000	1,047,647	1,765,000	2,074,045	65,354	85,061	106	1,44,354	1,57,818	89	92	95
	Interests	199,250	220,264	441,250	386,264								
Attestation	Square miles	968	971	968	971	58,080	31,948	33	58,080	31,948	33	62	66
	Interests	242,000	150,627	242,000	150,627								
Draft publication	Square miles	968	971	968	971								
Objections	Ditto	968	971	968	971	24,200	6,274	7	24,200	6,274	7	25	27
	Cases	5,512	5,512	5,512	5,512								
Final office work—													
Janch	Square miles	968	418	968	418	10,360	10,638	25	10,360	10,638	25	20	20
Statistics	Ditto												
16" maps	Ditto												
Topographical maps	Ditto												
Final record	Ditto												
	Interests												
Computation and recovery	Square miles												
Final publication	Ditto												
Case work—													
Section 105	Ditto												
	Tenancies												
,, 106	Square miles												
	Cases												
,, 108A	Square miles												
	Cases												
,, 40	Square miles												
	Cases												
Jamabandi	Square miles												
Diara	Ditto												
Operations under section 112	Ditto												
Municipalities	Ditto												
Supervision	.....						67,512			1,01,450			
Supplies, services and contingencies—						1,75,599			3,73,224				
(1) Ordinary	.....						1,12,385			1,81,263			
(2) Press	.....						2,373			2,373			
Director of Land Records' control	.....					4,616	4,616		6,652	6,652			
Total	.....												
Special work	.....												
GRAND TOTAL	.....					4,78,661	4,76,706		9,22,574	7,86,402			

APPENDIX II—*concld.*

Progress and cost in district operations during the year ending 30th September 1919.

District Nadia—commenced 1918. Estimated area, 2,603 square miles. 3 Blocks.

Branch of work.	Unit of report.	Progress. For year under report. Programme according to sanctioned programme for whole operation.	Progress. For year under report. Performance.	Progress. Up to date. Programme according to sanctioned programme for whole operation.	Progress. Up to date. Performance.	Cost (including book debit and indirect charges). For year under report. Estimated expenditure according to sanctioned estimate for whole operation.	For year under report. Actual expenditure.	For year under report. Actual cost rate.	Up to date. Estimated expenditure according to sanctioned estimate for whole operation.	Up to date. Actual expenditure.	Up to date. Actual cost rate.	Cost rate to which sanctioned estimate for whole operation works out.	Standard cost rate for 2-block, 3-block, district, etc., (as the case may be).
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Cadastral survey	Square miles	1,035	953	1,035	953	1,20,060	95,875	101	1,20,060	95,875	101	116	115
Khanapuri	Ditto	1,035	953	1,035	953	41,400	46,505	49	41,400	46,505	49	40	39
Initial recess	Plots	1,035,000	1,031,111	1,035,000	1,031,111	18,630	18,707	20	18,630	20,698	22	18	18
Bujharat	Square miles	1,035	953	1,035	953	94,185	91,868	96	94,185	91,868	96	91	94
	Ditto	1,035	953	1,035	953								
	Plots	1,035,000	1,054,253	1,035,000	1,054,253								
	Interests	258,750	416,938	258,750	416,938								
Attestation	Square miles	...	42	...	42	...	4,270	102	...	4,270	102	58	66
Draft publication	Interests	...	19,938	...	19,938								
Objections	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Final Office Work—	Cases	...	...	...	...	...	...	...	...	...	...	...	...
Janch	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
Statistics	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
16″ maps	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Topographical maps	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Final records	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
	Interests	...	...	...	...	...	...	...	...	...	...	...	...
Computation and recovery	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
Final publication	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Case-work—													
Section 105	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
	Tenancies	...	...	...	...	...	...	...	...	...	...	...	...
„ 106	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
	Cases	...	...	...	...	...	...	...	...	...	...	...	...
„ 108A	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
	Cases	...	...	...	...	...	...	...	...	...	...	...	...
„ 40	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
	Cases	...	...	...	...	...	...	...	...	...	...	...	...
Jamabandi	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
Diara	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Operations under section 112	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Municipalities	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Supervision	.....	1,035	953	1,035	953	1,06,820	48,107	50	1,06,820	48,555*	51	...	...
Supplies, services, and contingencies	.. ...	...	...	...	...	63,051	58,917	62	63,051	59,841*	63	...	...
(1) Ordinary	.....	...	...	...	...	...	...	...	...	...	...	...	...
(2) Press	.....	...	...	...	...	...	...	...	...	...	...	...	...
Director of Land Records' control	.....	...	...	...	...	10,010	4,752	5	10,010	7,453*	8	16	15
Total	.....	...	...	...	...	4,54,156	3,69,001	...	4,54,156	3,75,065	...	...	...
Special work	.....	...	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL	.....	...	...	...	...	4,54,156	3,69,001	...	4,54,156	3,75,065	...	...	...

* Including amount spent last year.

APPENDIX III.

Return of disputes and inspections during the year ending 30th September 1919.

DISTRICT.	Area in square miles cadastrally surveyed during the season.	PERSONAL PARTAL IN LINEAR MILES.			Independent partal by linear miles.	Total number of plots khanapuried.	NUMBER OF PLOTS TESTED.			Number of boundary disputes decided.	NUMBER OF INTERNAL DISPUTES DECIDED.	
		By Gazetted officers.	By Kanungos and Head Inspectors.	By Inspectors.			By Gazetted officers.	By Kanungos and Head Inspectors.	By Inspectors.		During Khanapuri and Bujharat.	During attestation.
1	2	3			4	5	6			7	8	
Major Operations.												
Bankura ...	800	191	3,744	...	...	1,028,805	5,467	51,792	...	313	4,512	1,529
Jessore ...	629	87	2,177	...	...	1,165,672	63,673	1,165,672	...	218	6,792	6,520
Nadia ...	953	61	3,896	...	...	1,031,111	...	48,886	...	24	2,832	184
Tippera-Noakhali	4	...	12	...	...	3,958	...	498	...	20	7	901
Rajshahi ...	...	...	...	...	...	...	...	...	...	6	...	...
Minor Operations.												
Hooghly ...	...	...	...	...	...	...	...	...	...	...	10	200
Howrah ...	0·15	0·15	...	...	0·15	400	50	...	...	...	10	244
24-Parganas ...	...	...	...	...	...	...	...	...	...	...	7	7
Faridpur ...	3	1·50	10·50	...	...	3,000	105	375	...	...	62	...

APPENDIX IV.

Progress in revision of Land Revenue during the year ending 30th September 1919.

DISTRICT.	Number of estates under revision.	Total area in acres.	Area in which rent-roll has been draft-published.		Objections under section 104E.		Area in which rent-roll confirmed under section 104E.	EFFECT OF THE RENTAL OF RAIYATS.								Area in which record-of-rights finally published.	Number of estates in which revision of land revenue completed.	Financial result.		Percentage of increase of rent.	Percentage of increase of revenue.
								Old rent.	New rent.	Amount of increase due to—					Amount of decrease due to—						
			In the year under report.	Up to the end of the year under report.	Pending for decision.	Decided.				Increase in size.	Extension of cultivation.	Increased fertility of soil.	Rise in prices.	Neighbouring rates.	Decrease in area.	Deterioration of the soil.			Old revenue.	New revenue.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
								Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.			Rs.	Rs.		
Howrah	1	...	520	520	127	...	...	3,032	4,528	...	757	269	...	470	...	...	...	...	...	...	35·70	...
Midnapore	61	26,992	288	26,992	...	...	25,530	63,435	79,521	2	4,029	...	10,848	1,207	...	...	26,213	27	42,285	53,343	25·36	26·15
24-Parganas	2	2,190	...	...	...	...	714	2,602	4,085	530	...	893	...	...	...	...	714	1	2,662	4,085	53·45	53·45
Mymensingh (minor operation).	3	6,721	2	6,721	...	...	6,719	9,089	10,852	...	...	...	1,763	...	...	...	6,719	1	6,362	7,597	20	20
Faridpur	5	10,986	...	...	...	...	9,526	13,820	19,523	937	...	4,766	...	...	...	...	9,526	4	13,820	19,320	141·24	139·79
Rajshahi (including diara of Pabna, Nadia and Murshidabad).	57	54,204	22,690	22,939	22	38	3,683	6,224	7,635	34	208	...	585	584	...	...	447	5	5,161	6,231	22·86	+20·07
Tippera-Noakhali ...	78	44	44	44	Nil	1,864	38	51,459	70,972	1,221	6,156	...	11,235		...	...	...	67	45,814	60,569	+38	+32

APPENDIX V.

Return of Rent settlement work in areas not under revision of Land Revenue during the year ending 30th September 1919.

DISTRICT.	COMMUTATION UNDER SECTION 40.			PROCEEDINGS UNDER SECTION 109(c) (WEST BENGAL DISTRICTS ONLY).				Class of tenants.	PROCEEDINGS UNDER SECTION 105.										
													Analysis of variation in the case of raiyats.						
													Amount of increase due to—					Amount of decrease due to—	
	Number of cases dealt with.	Commutation allowed.	Commutation refused.	Number of tenants.	Rent according to landlord.	Rent legally payable.	Rent settled by compromise.		Number of tenants for whom a fair rent has been determined.	Former rent.	New rent.	Difference per cent. + or —.	Increase in area, section 52(a).	Prevailing rates, section 30(a).	Rise in prices, section 30(b).	Landlord's improvement, section 30(c).	Fluvial action, section 30(d).	Decrease in area, section 52(b).	Permanent deterioration of soil, section 38(1)(a).
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
					Rs.	Rs.	Rs.			Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Hooghly	...	...	...	...	...	...	...	Tenure-holder	24	...	108	...	...	108	...	...	...	...	...
								Raiyats	328	2,123	2,957	+39	92	99	643	...	...	...	...
Howrah	...	...	...	...	...	...	...	Ditto	110	1,121	1,336	+19·50	50	...	165	...	...	...	...
								Under-raiyats	117	...	226	...	...	...	...	...	...	...	...
Midnapore	1,911	545	1,366	...	...	...	...	Raiyats	37,142	3,06,359	3,37,596	+9·25	6,306	403	24,694	26	...	191	...
								Tenure-holders	857	15,357	17,770	+13·58	...	...	...	...	...	...	...
Bankura	70	60	10	10	139	...	139	.....	...	...	...	...	...	...	...	...	...	...	...
24-Parganas	...	...	...	...	...	...	...	Tenure-holders	146	2,322	3,091	+33·1	...	...	769	...	...	...	...
								Raiyats	51	103	254	+146·6	...	...	151	...	...	...	...
Mymensingh	...	...	...	...	...	...	...	Ditto	17,250	1,08,179	1,31,356	21	13,035	...	10,142	...	...	...	...
Tippera-Noakhali ...	...	...	...	...	...	...	...	Tenure-holders ...	2,534	66,841	83,956	+26	...	...	...	...	...	...	...
								Raiyats	6,125	64,432	84,137	+30	11,217	...	8,985	...	...	497	...
								Under-raiyats	4	102	94	—18	...	...	...	...	...	...	...
Rajshahi (diara of Pabna, Nadia and Murshidabad).	...	...	...	...	...	...	...	Tenure-holders ...	913	12,212	16,393	+34·24	...	...	...	...	...	...	...
								Raiyats	26,072	2,46,864	2,92,837	+18·62	9,560	885	35,548	...	...	20	...
Dinajpur	...	...	...	...	...	...	...	Ditto	379	1,087	1,445	+32·93	...	...	358	...	...	...	...
Malda (Mathurapur Estate)	...	...	...	...	...	...	...	Ditto	175	2,558	2,819	+10·20	...	...	261	...	...	...	...

APPENDIX VI.

Results of appeals during the year ending 30th September 1919.

Name of estate or tract under settlement.	Nature of case.	Pending from previous year.	Instituted during the year.	Disposed of during the year.	Balance pending.	Upheld.	Modified.	Reversed.	Cases returned for re-trial.
1	2	3	4	5	6	7	8	9	10
Hooghly	Section 105 ...	36	5	36	5	14	...	21	...
Howrah (minor operations) ...	Do. ...	6	1	5	2	4	...	...	1
Midnapore	Commutation appeal.	29	279	297	11	96	187	1	12
	Section 104 G ...	1,502	130	1,630	...	1,291	339	...	...
	Appeal of sec. 105	8,588	7,246	2,685	13,149	766	519	96	1,305
	Ditto 106	25	50	32	43	27	3	1	1
Bankura	Boundary disputes	18	5	23	...	22	1	...	...
	Commutation appeal.	...	31	2	29	1	...	1	...
24-Parganas	Section 105 ...	9	2	3	8	...	...	1	2
	Do 106 ...	2	2	3	1	1	...	2	...
Jessore	Boundary disputes	6	53	39	20	23	16	...	1
Mymensingh	Section 105 ...	139	97	167	119	69	10	58	30
	Do. 106 ...	154	41	94	101	48	12	32	2
Tippera-Noakhali ...	Boundary disputes	...	7	7	...	7	...	...	...
	Section 104 G ...	81	296	377	...	337	40	...	...
	Boundary disputes	26	13	39	...	18	7	14	...
Rajshahi	Section 105 ...	92	964	114	942	114	...	...	...
	Do. 106 ...	17	175	...	192	...	...	...	...
Dinajpur	Section 105 ...	...	2	...	2	...	...	...	...
Malda (Mathurapur Estate)	Section 105 ...	...	1,337	...	1,337	...	...	...	...
	Do. 106 ...	...	25	...	25	...	...	...	...

APPENDIX VII.

Nature and number of holdings for which final statistics have been completed during the year ending 30th September 1919.

District.	Name of each estate, tract, etc., under settlement.	Area for which final statistics were completed during the year.	Number of Khatian recorded in the name of, or for—															
			Proprietor.		Rent-free tenure-holders.		Tenures holders (other than rent-free).	Raiyats at fixed rates or fixed rents.	Rent-free raiyats.		Settled and occupancy raiyats.	Non-occupancy raiyats.	Occupants (of non-agricultural holdings).	Under-raiyats.	Unoccupied lands (including area outside the record).	Lands occupied for public purposes.	Total.
			As to private lands.	Not as private lands.	Service.	Others.			Service.	Others.							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	16
		Sq. miles.															
Hooghly ...	Private estates	3·25	...	10	39	588	153	206	12	260	1,675	40	6	242	....	11	3,132
Howrah ...	Ditto ...	4·06	...	12	...	74	35	121	19	115	1,142	15	...	129	...	33	1,665
Midnapore ...	District operations.	...	...	179	...	145	928	141	98	132	20,483	214	128	1,325	...	88	24,161
24-Parganas ...	Private estates	1·11	...	1	...	...	...	...	...	...	109	17	...	8	...	1	136
Tippera-Noakhali.	District operations.	1,374	...	33,462	...	9,673	112,128	16,443	3,833	742	492,309	4,536	7,622	57,908	252	1,316	739,931
Rajshahi ...	Ditto ...	482	...	...	...	1,293	7,305	12,623	1,029	49	293,631	28,783	18,418	148,692	181	...	417,303

APPENDIX VIII.

Progress made in recovery of costs during the year ending 30th September 1919.

Division.	District.	Estate or tract under settlement.	Demand (outstanding *plus* current).			Collections.							Balance.		
						Landlord's share.			Occupier's share.						
			Landlord's share.	Occupier's share.	Total.	Voluntary.	By certificate.	Total.	Voluntary.	By Certificate.	Total.	Grand total collected.	Landlord's share.	Occupier's share.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A.—Imperial Operations.															
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Burdwan	Midnapore	District operations	3,61,659	63,867	4,25,526	1,39,073	1,23,644	2,62,717	41,041	3,870	44,911	3,07,628	99,640	510	1,00,150*
Dacca	Mymensingh	Ditto	1,66,974	35,859	2,02,833	1,19,635	47,339	1;66,974	34,596	Nil	34,596	2,01,570	...	...	...
Chittagong	Tippera-Noakhali	Ditto	3,76,967	2,90,824	6,67,791	2,77,604	50,232	3,27,836	2,32,679	4,300	2,36,978	5,64,814	49,132	53,846	1,02,977
Rajshahi	Rajshahi	Ditto	6,18,654	2,81,927	9,00,581	3,79,116	69,858	4,48,974	2,49,862	209	2,50,071	6,99,045	1,69,680	31,856	2,01,536
B.—Minor Operations.															
Burdwan	Hooghly	Petty Estates	837	1,417	2,254	837	...	837	1,416	...	1,416	2,253	...	1	1
Presidency	24-Parganas	Ditto	3,832	...	3,832	2,313	80	2,393	...	...	...	2,393	1,440	...	1,440

* Excluding Rs. 18,363 already remitted and including Rs. 615 collected in excess.

APPENDIX IX.

General progress and cost in Survey and Settlement work done during the year ending 30th September 1919.

Branch of work.	Unit of report.	Hooghly.			Howrah.			24-Parganas.			Mymensingh.		
		Programme of the year under report.	Work done during the year under report.	Cost.	Programme of the year under report.	Work done during the year under report.	Cost.	Programme of the year under report.	Work done during the year under report.	Cost.	Programme of the year under report.	Work done during the year under report.	Cost.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
				Rs.			Rs.			Rs.			Rs.
Traverse Survey, (under Settlement Officer) ...	Square miles	...	...	...	0·16	0·16		...	...		...	...	...
Cadastral Survey	Ditto	...	...	...	0·16	0·16		...	...		...	...	...
Khanapuri	Ditto	...	...	...	0·16	0·16	298	...	...		...	...	...
	Plots	...	...	...	400	400		...	...		...	...	...
Preliminary office work	Square miles	...	...	...	0·16	0·16		2·30	2·30		...	...	...
Bujharat	Ditto	3·25	3·25		0·16	0·16		2·30	2·30		...	...	...
	Plots	7,477	7,474	694	4,400	4,400	418				...	...	...
	Interests	2,261	2,261		1,789	1,780		1,165	1,165		...	...	...
Attestation	Square miles	3·25	3·25	330	3·28	3·28		230.290	230.290		...	...	...
	Interests	2,075	2,075		2,080	2,080					...	...	...
Draft publication	Square miles	3·25	3·25		3·28	3·28	80	290	290		...	...	...
Objection under section 103A	Square miles	3·25	3·25	283	4·22	4·06		2·30	2·30		...	...	...
	Cases	557	557		750	710	60	2·30	2·38		...	...	...
Final office work—													
Jamch	Square miles	3·25	3·25		4·22	4·06		2·30	...	2,114	...	...	...
Statistics	Ditto	3·25	3·25	318	4·22	4·06	50	8·22	...		...	...	...
Preparation of 16" maps	Ditto	3·25	3·25		4·22	4·06		2·30	...		...	...	...
Topographical maps	Ditto	...	...	...	...	...	36	Nil			...	...	...
Preparation of final records	Ditto	3·25	3·25		...	...	...	3·41	1·11		10·503	10·500	
	Interests	...	...	245	...	...	...	426	136		...	...	374
Final publication	Square miles	3·25	3·50	80	4·22	...	...	3·41	1·11		10·503	10·500	
Recovery of costs	Ditto	2	2	131	...	...	...	...	...		...	...	...
Case work under Section 108A	Cases	...	...	...	8	8		...	...		...	...	...
Ditto ditto 105	Do.	378	352										
Ditto ditto 106	Do.	63	37		293	227	586	350	350		...	...	...
Ditto ditto 112	Do.	...	...	536	109	48		81	81		...	...	...
Ditto ditto 104E(1)	Do.	...	...		...	...		...	...		...	...	...
Ditto ditto 109(c)	Do.	...	...		...	...		...	...		...	...	...
Revision in temporarily-settled estates—											Acres.	Acres.	
(a) Draft publication under section 103A.	Square miles	...	...	...	0·94	0·94	509	2·30	2·30		2·61	2·01	...
(b) Final publication	Ditto	...	...	...	...	...		1·11	1·11		...	...	...
Total cost	.....	...	...	2,617	...	...	2,037	...	...	2,114	...	...	374

APPENDIX IX—*concld.*

General progress and cost in survey and Settlement work done during the year ending 30th September 1919.

BRANCH OF WORK.	Unit of reports.	FARIDPUR.			DINAJPUR.			MALDA (MATHURAPUR ESTATE).					
		Programme of the year under report.	Work done during the year under report.	Cost.	Programme of the year under report.	Work done during the year under report.	Cost.	Programme of the year under report.	Work done during the year under report.	Cost.	Programme of the year under report.	Work done during the year under report.	Cost.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
				Rs.			Rs.			Rs.			Rs.
Traverse Survey (under Settlement Officer)	Square miles	3	3	311[a]	...	...	...	...	...	...	...	...	...
Cadastral Survey	Ditto	3	3	152	...	...	...	...	...	...	...	...	...
Khanapuri	Ditto	3	3	60	...	...	...	...	...	...	...	...	...
	Plots	3,000	3,000										
Preliminary office work	Square miles	3	3	20	...	...	...	...	...	...	...	...	...
Bujharat	Ditto	3	3	102	...	...	...	...	...	...	...	...	...
	Plots	3,000	3,000										
	Interests	1,200	1,200										
Attestation	Square miles	3	3	20	...	...	...	...	...	...	...	...	...
	Interests	1,200	1,200										
Draft publication	Square miles	3	3		1·63	1·63							
Objections under section 103A	Ditto	3	...	...	1·63	1·63							
	Cases	...	...	...	59	59	79	...	...	...	...	...	...
Final office work—													
Jauch	Square miles	3	3	25	1·63	1·62							
Statistics	Ditto	3	3	5	1·63	1·62	25	...	...	...	...	...	...
Preparation of 16″ maps	Ditto	7	4	50	1·63	1·62	15	...	...	...	...	...	...
Topographical maps	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Preparation of final records	Ditto	17	14	500	1·63	1·62	52	...	...	...	...	...	...
	Interests	14,000	12,800		702	702							
Final publication	Square miles	17	14	150	1·63	1·62	30	...	...	...	...	...	...
Recovery of costs	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Cases under section 108A	Cases	...	...	...	...	...	...	...	...	...	...	...	...
Ditto ditto 105	Do.	...	...	...	379	379	114	...	1,375	5,882	...	...	...
Ditto ditto 106	Do.	...	...	...	...	...	...	...	31		...	...	...
Ditto ditto 112	Do.	...	...	...	...	...	...	...	...	...	...	...	...
Ditto ditto 104E(1)	Do.	...	...	...	...	...	...	...	...	...	...	...	...
Ditto ditto 109(c)	Do.	...	...	...	...	...	...	...	...	...	...	...	...
Revision in temporarily-settled estates—													
(*a*) Draft publication under section 103A	Square miles	...	...	...	...	...	...	...	...	...	...	...	...
(*b*) Final publication	Ditto	...	...	...	...	...	...	...	...	...	...	...	...
Total cost		...	...	1,395	...	...	315	...	...	5,882	...	...	...

[a] Including Rs. 170 for boundary pillars.

APPENDIX X.

Result of inspection of Survey Marks during the year ending 31st March 1919.

Division and District.	Total number of estates surveyed under the Survey Act or Bengal Tenancy Act.	Total number of estates in which permanent survey marks were erected.	Number of marks erected in the estates mentioned in column 3.	Number of marks inspected during the year under report.	Result of inspection of marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
Government Estates and Temporarily-settled Estates.										
Burdwan	...	18	515	357	265	20	*72	...	.....	
Birbhum	3	3	14	14	14	...	...	...	.....	
Bankura	7	7	30	30	29	1	...	...	Rupees 8 cost realised from party in fault.	
Burdwan ... Midnapore	...	61	2,743	2,488	2,315	104	*69	1	.....	
Hooghly	72	35	794	728	728	...	...	...	.....	
Howrah	14	14	240	240	237	1	2	...	.....	
24-Parganas	46	36	1,970	1,569	1,108	41	420	19	.....	
Nadia ...	49	32	1,076	1,043	1,018	12	13	4	.....	
Presidency ... Murshidabad	71	62	968	968	880	8	80	80	Rupees 47-8.	
Jessore	3	5	37	28	26	2	...	...	Rupees 19-14 out of the grant sanctioned by Board and Rs. 27-10 from Commissioner's grant.	
Khulna	26	26	317	172	150	3	19	...	.....	
Mymensingh	41	2	458	238	188	35	15	...	.....	
Dacca ... ... Bakarganj	224	118	694	227	184	5	38	1	Rupee 1-8 realised from the man on whose plot it was embedded.	
Chittagong	5	5	2,659	819	725	28	†66	1	Replaced by an old mark without cost.	
Chittagong ... Tippera	142	142	377	126	94	6	‡26	...	.....	
Noakhali	...	...	...	180	180	...	...	...	.....	
Bogra	2	2	478	75	70	5	...	5	Rupees 7 met from contingencies.	
Pabna ...	5	5	22	22	12	10	...	...	.....	
Rajshahi ... Malda ...	30	26	243	243	234	...	9	6	.....	
Darjeeling	4	3	193	193	193	...	...	...	.....	
Jalpaiguri	5	5	1,967	628	614	..	9	1	Rupees 11-0-6.	
Total ...	749	607	15,785	10,388	9,263	281	844	118		

* All these relate to Contai Subdivision; the replacement is expected to be finished by June 1920.
† 28 marks washed away and the remaining 38 are missing.
‡ Washed away by the river.

APPENDIX X—*concld.*

Division and District.	Total number of estates surveyed under the Survey Act or Bengal Tenancy Act.	Total number of estates in which permanent boundary marks were erected.	Number of marks erected in estates mentioned in column 3.	Number of marks inspected during the year under report.	Results of inspection of marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
WARDS ESTATES.										
Burdwan — Midnapore	...	4	1,947	1,705	1,393	38	274	312	Met from the Director of Land Records' grant of Rs. 122.	
Burdwan — Hooghly	2	2	35	25	25	...	...	...	.....	
Burdwan — Bankura	25	25	433	433	433	...	...	...	.....	
Presidency — Murshidabad	1	1	22	22	22	...	...	...	.....	
Presidency — Jessore	1	1	49	46	31	...	15	3	Rupees 10-12 from khasmahal contingencies.	
Dacca — Bakarganj	55	2	1,096	1,096	1,057	5	34(a)	...	.....	
Chittagong — Tippera	6	6	3 054	346	300	26	20	...	...	
Rajshahi — Dinajpur	9	2	683	154	153	...	1	1	Replaced by the estate amin.	
Rajshahi — Malda	2	2	125	80	80	...	...	...	.....	
Total	94	44	7,444	3,907	3,494	69	344	316		
ZAMINDARI ESTATES.										
Burdwan — Burdwan	...	1	26	26	23	2	1	...	Restored by the zamindar.	
Burdwan — Midnapore	...	3	397	360	360	...	...	...	.....	
Burdwan — Hooghly	72	60	369	315	315	...	...	...	.....	
Burdwan — Bankura	71	71	409	409	399	1	9	...	.....	
Burdwan — Howrah	6	6	33	33	33	...	...	...	.....	
Burdwan — Birbhum	69	69	720	720	717	1	2	3	Rupees 4-8 met from Director of Land Records' grant.	
Presidency — 24-Parganas	48	23	206	...	...	...	...	...	.....	
Presidency — Murshidabad	19	19	1,719	1,321	1,101	20	200	...	.....	
Presidency — Nadia	5	6	87	87	87	...	...	...	.....	
Presidency — Jessore	4	21	550	...	...	...	...	...	.....	
Presidency — Khulna	...	7	378	95	95	...	...	...	.....	
Dacca — Bakarganj	3,026	3,026	4,507	3,681	3,268	...	413†	...	.....	
Dacca — Noakhali	...	...	...	2*	...	2	...	...	.....	
Chitagong — Tippera	525	525	412	...	...	...	...	...	.....	
Chitagong — Jalpaiguri	2	2	316	252	246	3	3	...	.....	
Rajshahi — Pabna	16	16	224	224	182	40	2	...	.....	
Rajshahi — Malda	4	4	494	401	401	...	...	...	.....	
Rajshahi — Rangpur	19	12	169	6	6	...	...	...	.....	
Rajshahi — Bogra*	Diara pillars		48	...	...	...	...	...	.....	
Total	3,886	3,871	11,004	7,932	7,233	69	630	3		
Grand Total	4,729	4,522	34,233	22,227	19,990	419	1,818	437		

* No inspection was made.
† 5 pillars reported to be washed away, steps are being taken for restoraion of other pillars.
(a) 29 washed away and 5 were removed before being washed away.

APPENDIX XI.

Statement showing maps in stock received and sold during the year ending 31st March 1919.

Particulars.	Number of copies.	Value.	Number of maps of which there are less than four copies in stock.
1	2	3	4
		Rs. A.	
District Maps—			
Balance on the 1st April 1918 ...	597	...	...
Additions during the year ...	31	...	...
Total ...	628	...	...
Issue on Public Service ...	57	...	...
Issue by sale	39	32 0	...
Total ...	96	...	...
Balance on the 31st March 1919 ...	532	...	...
Thana Maps—			
Balance on the 1st April 1918 ...	32,217	...	...
Additions during the year ...	260,549	...	...
Total ...	292,766	...	...
Issue on Public Service ...	5,543	...	...
Issue by sale	2,374	703 4	...
Total ...	7,917	...	...
Balance on the 31st March 1919 ...	*282,025	...	...
Village maps—			
Balance on the 1st April 1918 ...	875,624	...	...
Additions during the year ...	1,106,866	...	...
Total ...	1,982,490	...	...
Issue on Public Service ...	7,792	...	...
Issue by sale	14,251	3,678 10	...
Total ...	22,043	...	...
Balance on the 31st March 1919 ...	1,960,447	...	...

* Excludes 2,824 copies of old printgr

APPENDIX XII.

Return of printed Settlement Records in Stock, received and sold during the year ending 31st March 1919.

DISTRICT.	Balance on 1st April 1918.	Additions during the year.	Total.	Issues on public service.	Issues by sale.	Total.	Balance on 31st March 1919.	RECEIPTS	
								By cash.	By Court-fees
	2	3	4	5	6	7	8	9	10
Khatians.									
								Rs. A. P.	Rs. A. P.
Mymensingh	...	1,684,675	1,684,675	38,932	2,080	41,012	1,643,663	260 0 0	
Bakarganj	Return blank.								
Rajshahi	1,061,835	3,011,794	4,073,629	734	382,937	383,671	3,689,958	13,615 4 0	66 15 0
Dacca	6,492,632	...	6,492,632	153	114,386	114,539	6,378,093	...	13,927 3 0
Faridpur	Figures will not be ready before January 1920.								
Midnapore	1,330,614	6,157,874	7,488,488	11,346	67,276 +70,988*	149,610	7,409,866*	8,409 8 0 4,236 0 0	...
Settlement Officer, Tippera-Noakhali.	402,252	1,484,165	1,886,417	9,426 (a) 766,532	322,259	1,098,217	788,200	17,274 11 1	...
Deputy Collector, Jalpaiguri.	Not reported (*vide* statement 8).								
Collector of Chittagong ...	...	1,298	1,298	...	...	...	1,298	...	...
Collector of Noakhali ...	...	1,071,839	1,071,839	...	1,274	1,274	1,070,565	107 14 4	...
Asssistant Settlement Officer, Mymensingh.	4,242,592	20,000	4,262,592	...	442,712	442,712	3,819,880	5,775 9 6	8,731 8 0
Collector, Tippera	339,987	...	339,987	1,721	5,341	7,062	332,925	667 10 0	...
Total ...	13,869,912	13,431,645	27,301,557	828,844	1,409,253	2,238,097	25,063,460	50,346 8 11	22,725 10 0
Plot Index.									
Bakarganj	Return Blank.								
Rajshahi	22,245	20,855	43,100	13	3,498	3,511	39,589	874 4 0	0 4 0
Dacca	27,412	...	27,412	...	417	417	26,995	...	104 4 0
Faridpur	Complete return is not ready.								
Midnapore	11,019	12,706	23,725	1	59 41*	101	23,665	33 4 0 10 4 0*	... ...
Collector of Chittagong ...	...	16	16	...	...	...	16	...	...
Settlement Officer, Tippera-Noakhali.	3,053	8,940	11,993	172 6,357 (a)	2,356	8,885	3,108	315 6 0	...
Collector, Noakhali... ...	...	8,394	8,394	...	...	...	8,394	...	...
Assistant Settlement Officer, Mymensingh.	19,069	1,890	20,959	...	2,665	2,665	18,294	...	666 4 0
Jalpaiguri	Not reported.								
Total ...	82,798	52,801	135,599	6,543	9,036	15,579	120,020	1,233 2 0	770 12 0

*Sold by Settlement Officer before delivery of records during the year to Collector.
(a) Made over to Noakhali and Chittagong Collectors for sale.

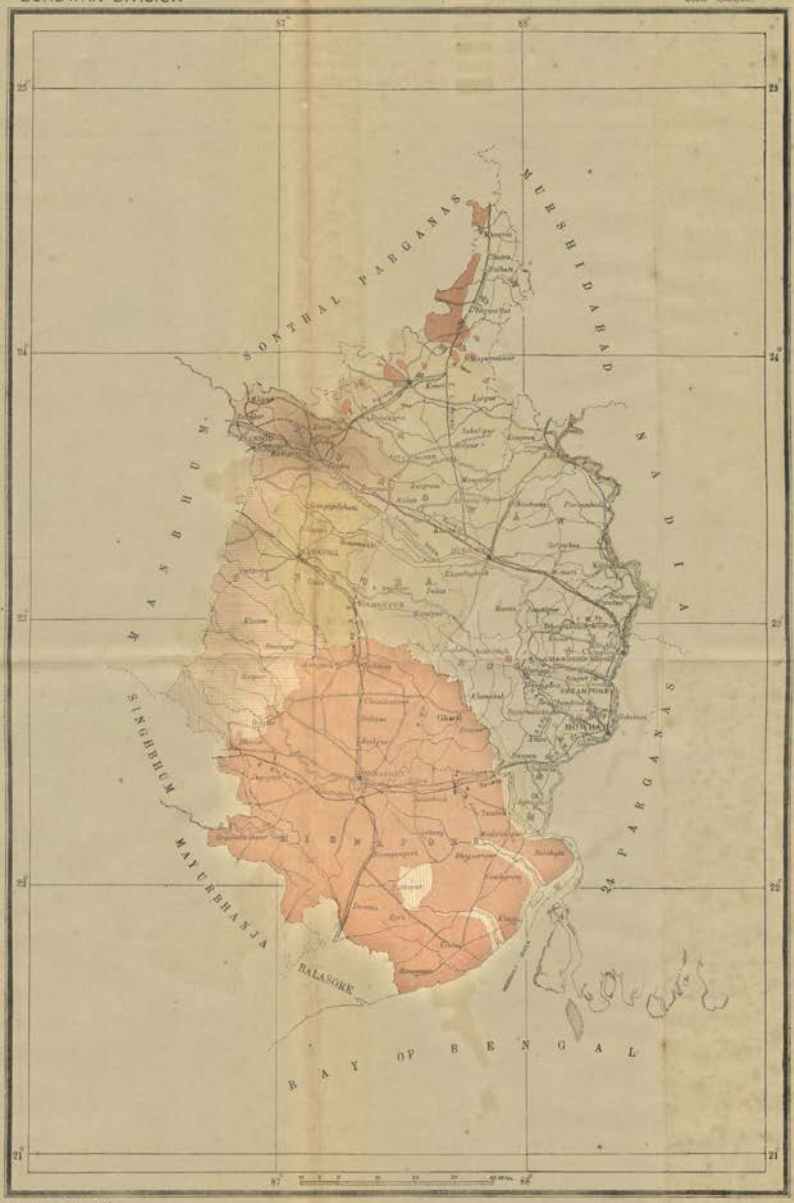
B. S. Press—9-2-1920—3279J—332—C. A. P.

PROGRESS OF MAJOR SETTLEMENT WORK

BURDWAN DIVISION

TO 30th SEPTEMBER 1919

Scale 1/1,000,000



REFERENCES.

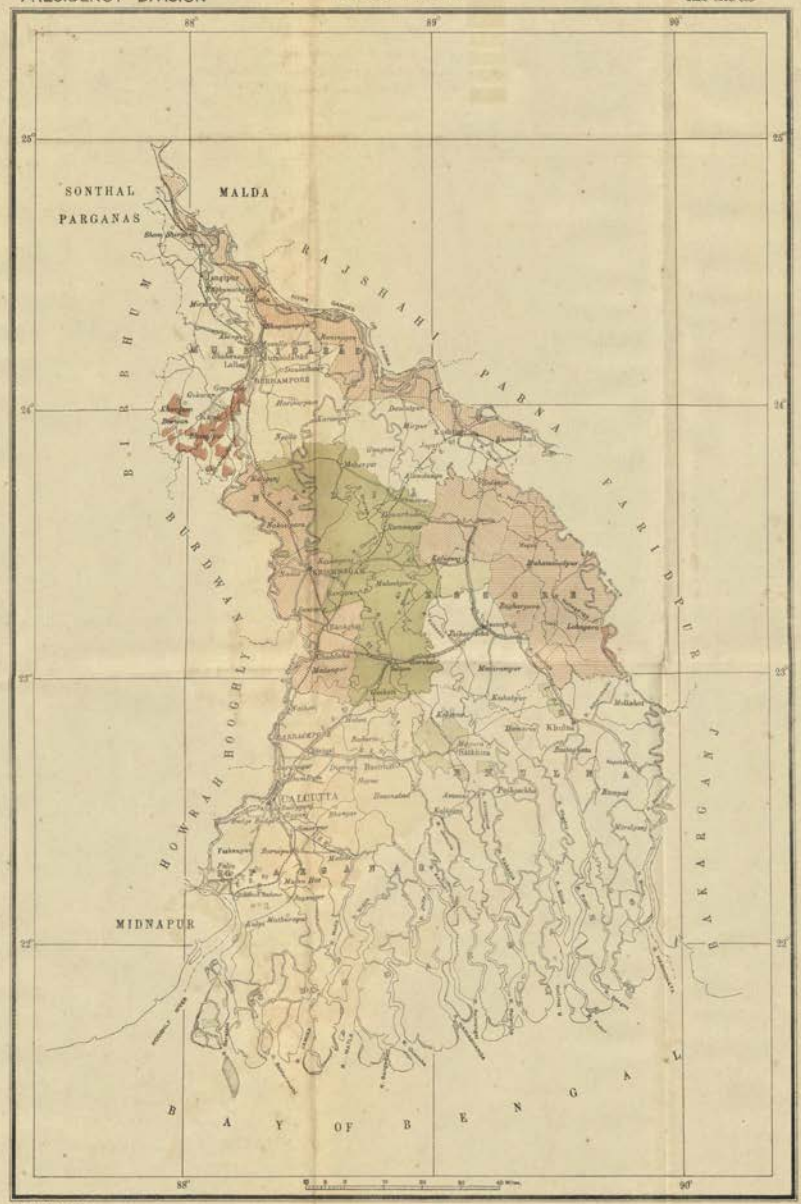
- Previously Finally Published
- Finally Published in 1918-19
- Draft Published in 1918-19
- Previously Traversed
- Khanapuried in 1918—19
- Traversed in 1918—19

PROGRESS OF MAJOR SETTLEMENT WORK

PRESIDENCY DIVISION

TO 30th SEPTEMBER 1919.

Scale 1,000,000



REFERENCES

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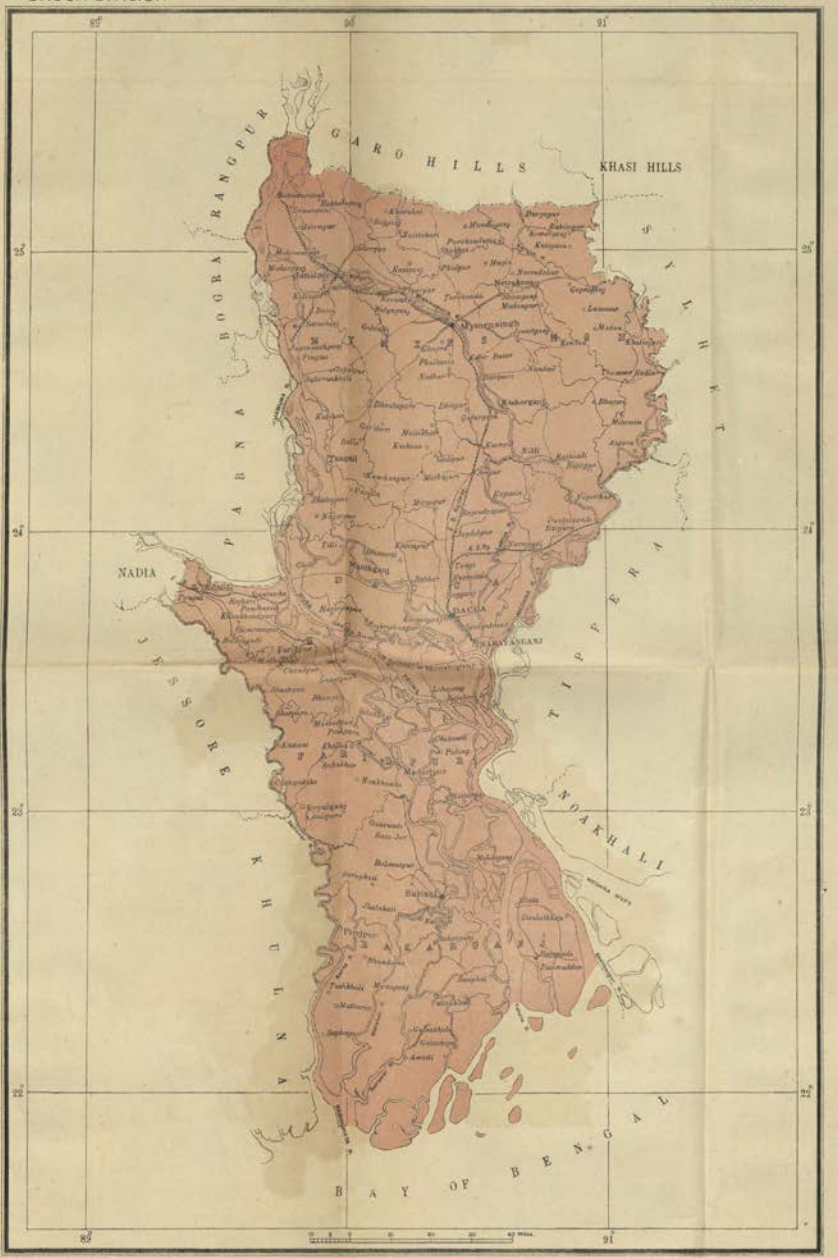
- Khanapuried up to 1919
- Traversed in 1918-19
- Previously Traversed

PROGRESS OF MAJOR SETTLEMENT WORK

TO 30th SEPTEMBER 1919.

DACCA DIVISION

Scale 1/1,000,000



D. O. Geogl. S. E. No. 6 M. of 1920

REFERENCES

Previously Finally Published ...

Draft Published up to 1918—19 ...

GOVERNMENT OF BENGAL.

REVENUE DEPARTMENT.

Land Revenue.

CALCUTTA, THE 13TH FEBRUARY, 1920.

RESOLUTION—No. 1719L.R.

READ—

The Survey and Settlement Reports for the year ending the 30th September, 1919.

DURING the year under review no new district was brought under survey, but settlement operations were commenced in the district of Nadia. Both the Survey and Settlement Departments continued to work with three parties in accordance with the curtailed programme temporarily adopted as a measure of economy during the war. Steps have, however, been already taken to revert to the full programme with four survey parties in the current year and consequently four settlement parties in the ensuing year.

2. The main programme of the Survey Department lay in the traverse survey of an area of 2,611 square miles in the districts of Bankura, Nadia and Jessore including the riverain areas of the district of Nadia and of the neighbouring portions of Hooghly, Burdwan, Murshidabad and the 24-Parganas down to the Jubilee Bridge at Naihati. One survey party dealt with an area of 777 square miles falling in thanas Gangajalghati, Bankura and Onda in the district of Bankura. Another survey party completed the traverse of 1,185 square miles in Nadia and the diara areas on the river Bhagirathi mentioned above. The third survey party traversed an area of 649 square miles in thanas Maheshpur, Bongaon, Gaihatta and Sarsa in the district of Jessore.

3. Eight hundred and thirty-two thousand one hundred and twenty-six copies of maps were prepared during the year. Satisfactory progress was made in the production of large scale (4″) jurisdiction maps in the districts of Noakhali, Tippera and Rajshahi, but the production of small scale jurisdiction maps generally requires acceleration. Progress was also made in the preparation of comparative maps in diara areas. The Survey Department had in hand a substantial programme of miscellaneous surveys and mapping comprising the survey of the Howrah Municipality and of scattered areas in various parts of the Presidency. A special demarcation of the Nadia rivers has been undertaken in connection with recent proposals for watching these rivers and their effect on the river Hooghly.

4. No district kanungoes were sent for training to the Government Survey School near Comilla; but three candidates for such posts received their training in the school. The number of students admitted into the school was 51 against 28 in the preceding year.

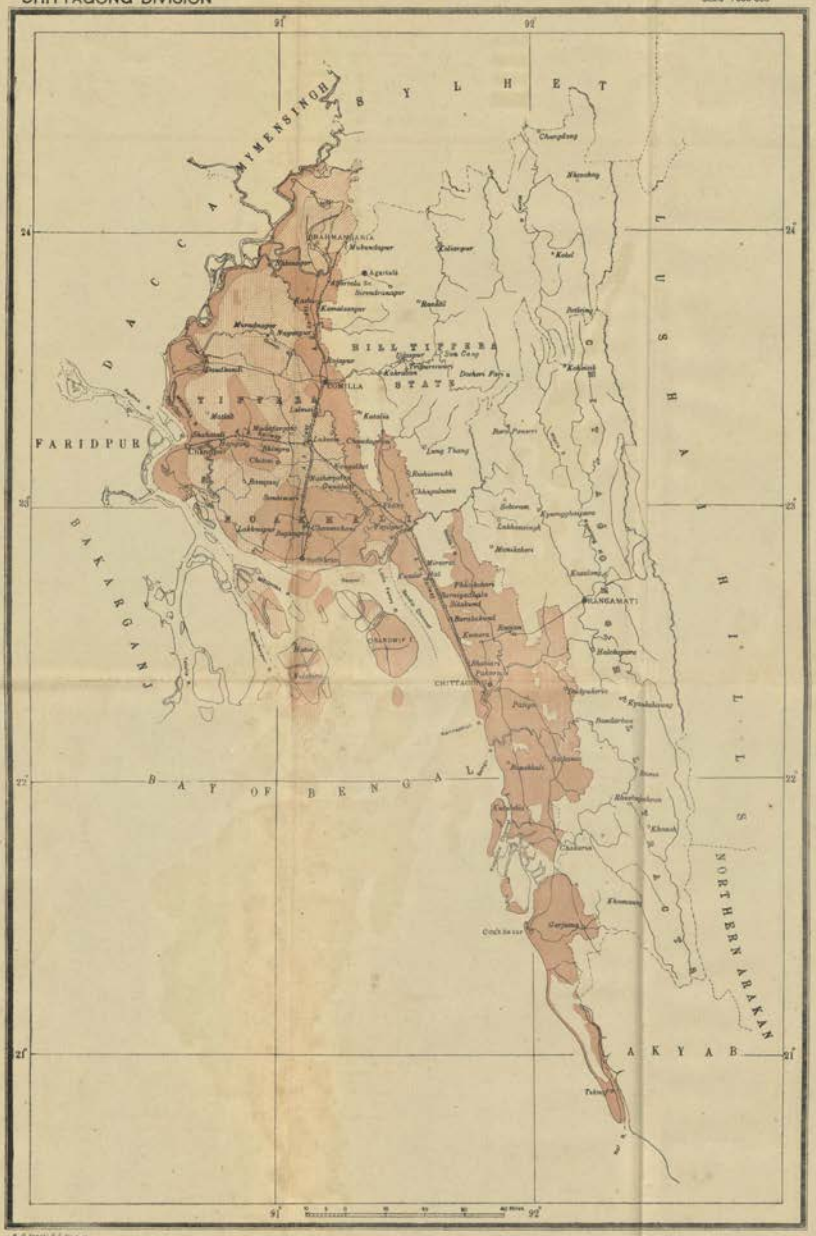
5. Major settlement operations were in progress in the districts of Midnapore, Mymensingh, Rajshahi, Tippera, Noakhali, Jessore, Bankura and Nadia. Two settlement parties were fully employed in the districts of Jessore and Bankura; one settlement party was divided between the joint operations in the districts of Tippera and Noakhali and the operations in Nadia; in the remaining districts only the staff necessary for the concluding stages of a

PROGRESS OF MAJOR SETTLEMENT WORK

TO 30th SEPTEMBER 1919

CHITTAGONG DIVISION

Scale 1/1000 000


91°
92°
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23°
22°
21°
SYLHET
MYMENSINGH
DACCA
TIPPERA
FARIDPUR
BAKARGANJ
BARISAL
HILL TIPPERA
TWIPRA STATE
TUSHAI HILLS
CHITTAGONG HILL TRACTS
NORTHERN ARAKAN
AKYAB
BAY OF BENGAL
BRAHMANBARIA
Mubendgar
Agartala
Sreedrampur
Kamalsagar
Munshiganj
Rajnagar
Kasba
Kotalia
Chandpur
Lakhsmipur
Chamdkhali
Bhuyan
Chalna
Bamna
Sankarpur
Madaripur
Mehar
Kalkini
Gaurnadi
Barisal
Bakerganj
Patuakhali
Galachipa
Kalapara
Rangabali
Kuakata
Lalmai
Comilla
Chandina
Debidwar
Chauddagram
Muradnagar
Akhaura
Brahmanbaria
Kasba
Nabinagar
Bancharampur
Kasba
Bijoynagar
Kasba
Ashuganj
Sarail
Shahbazpur
Sonamura
Belonia
Sabrum
Rabirbazar
Sonagazi
Feni
Chhagalnaiya
Parshuram
Fulgazi
Daudkandi
Monohardi
Shibpur
Narsingdi
Kasba
Raipura
Bhairab Bazar
Kishoreganj
Nikli
Hossainpur
Pakundia
Kuliarchar
Karimganj
Kasba
Itna
Katiadi
Bajitpur
Kuliarchar
Austagram
Mithamain
Kasba
Jangalia
Sherpur
Bogra
Sherpur
Shibganj
Gaibandha
Palashbari
Gaibandha
Sundarganj
Kurigram
Kurigram
Nilphamari
Saidpur
Lalmanirhat
Patgram
Lalmanirhat
Kaliganj
Hatibandha
Patgram
Dimla
Jaldhaka
Debiganj
Panchagarh
Tetulia
Boda
Panchagarh
Thakurgaon
Ranisankail
Thakurgaon
Pirganj
Thakurgaon
Baliadangi
Thakurgaon
Haripur
Thakurgaon
Ranisankail
Pirganj
Rangpur
Kaunia
Rangpur
Gangachara
Rangpur
Mithapukur
Rangpur
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Rangpur
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Pirganj
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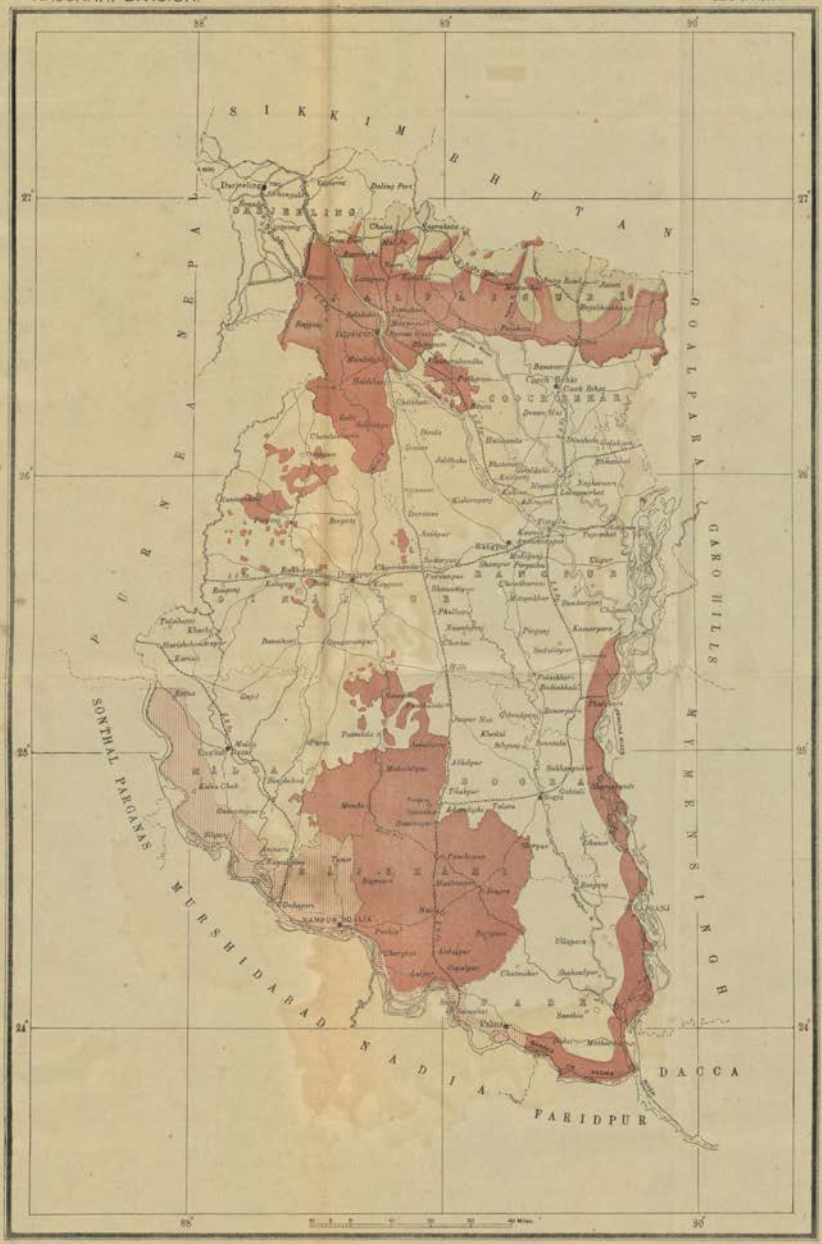
Baliadangi
Rangpur
Haripur
Rangpur
Ranisankail
Rangpur
Pirganj
Rangpur

PROGRESS OF MAJOR SETTLEMENT WORK.

RAJSHAHI DIVISION.

TO 30th SEPTEMBER 1919.

Scale 1/506,880.



REFERENCES.

- Previously Finally Published.
- Finally Published in 1918–19.
- Draft Published up to 1918–19.
- Previously Traversed.

settlement was employed. Altogether 2,375 square miles were cadastrally surveyed as against 2,517 in the previous year. Records for 2,024 square miles were attested and final records for 2,098 square miles were prepared, against 1,676 and 3,142 square miles, respectively, in the previous year. Minor operations were continued in the districts of Howrah, Hooghly, the 24-Parganas, Khulna, Mymensingh, Faridpur and Dinajpur; altogether records for about 31 square miles were finally published in these operations. The total area for which a record-of-rights has now been completed in this Presidency amounts to 32,132 square miles out of an area of about 65,960 square miles to which the Bengal Tenancy Act applies, that is to say, nearly one-half of that area.

6. In Midnapore the arrears of statistics, preparation of 16-inch maps and printing of records were all completed. Good progress was made in the main item of the year's programme which is the last stage of the operations, viz., the disposal of cases; only a comparatively small number of cases is now pending for disposal. The proceedings for the settlement of rents under section 112 of the Bengal Tenancy Act in pargana Silda were confirmed by the Government of India, and the new rents came into effect from the Amli year commencing on the 7th September, 1919. The settlement proceedings in this district are almost complete.

7. The principal items of work remaining in Mymensingh consisted of a few arrears of printing, computation and recovery and case-work. The programme of diara resumption proceedings covered nearly 418 new estates, of which 50 with a total land revenue demand of Rs. 13,082 were completed. With the exception of the balance of this programme the settlement work is practically finished in this district.

8. In the district of Rajshahi, progress in all stages, except that of case-work, was in advance of the programme. In the final stage of case-work the total number of tenancies dealt with under section 105 of the Bengal Tenancy Act was 40,730; the result was an increase of the rent of raiyats by 18 per cent. and of tenure-holders by 34 per cent. A heavy programme of diara resumption proceedings has protracted the final stages into the current settlement year.

9. Performance was well ahead of the programme in Tippera and Noakhali in all the stages subsequent to and including attestation, except in respect of recovery and case-work. The arrears in these two stages are due to the postponement of recovery in Brahmanbaria thana twice on account of floods and economic distress in that subdivision. The total area under resettlement of land revenue was 318 square miles.

10. In Jessore and Bankura, only the intermediate stages of the operations have been reached. The main items of the programme in Bankura were 968 square miles of attestation in the first block and 797 square miles of cadastral survey and field *bujharat* (field-to-field verification of the map and record) in the second block. Attestation was easily completed, but the programme in the second block, which also includes the industrial subdivision of Asansol in the district of Burdwan, was finished only after a severe struggle which told heavily upon the health and energy of the staff. The settlement staff were faced with both difficulties caused by outbreaks of fever and influenza and difficulties in securing labour. Steps were taken to resume all unresumed *ghatwali* lands in the district of Bankura.

11. In Jessore the programme comprised 656 square miles of cadastral survey and preliminary record-writing, 936 square miles of field *bujharat* and 812 square miles of attestation. This included arrears from the previous year. Apart from the notoriously unhealthy climate of the district the main difficulty of the work lay in its bulk; 16⅓ lakhs of plots were dealt with during field *bujharat* and 6½ lakhs of interests during attestation. In spite of these difficulties the whole programme was completed.

12. Settlement operations were commenced in the district of Nadia and the adjoining riverain areas. In this area too the staff had to combat

with sickness. Altogether 953 square miles were surveyed in the year, of which 94 square miles lay on the west bank of the Bhagirathi. The area is remarkable for the large number of tenancies described in the landlords' records as *utbandi*. Preliminary enquiries were made into the incidents of these tenancies, and it was found that they comprised many different grades and classes, all of which could not be real *utbandi*. The nature of these tenancies will be recorded during attestation in the current year. Government have recently had occasion to deal again with the principles on which such tenancies should be recorded, but they have found no justification for departing from the principles which were adopted in 1917 after much deliberation and consultation with the legal advisers of Government, including the then Advocate-General. The rules based on these principles, it may be observed, inflict no hardship on the landlord who is content to accept along with the conveniences of the *utbandi* system its attendant inconveniences.

13. In Mymensingh, Bankura and Nadia the expenditure was kept well within the sanctioned estimates, but the expenditure exceeded the estimates in other districts. In Midnapore the excess, which is due to the institution of a large number of cases, is more than compensated for by the excess in receipts. In Rajshahi the increase in expenditure was accounted for by the fact that performance was ahead of the programme. In Tippera-Noakhali the work done was also largely in excess of the sanctioned programme ; on the total estimate a considerable saving is expected. On the other hand, in Jessore, the numbers of plots and interests were found to be so much in excess of what was anticipated that in this district it is expected that the original estimate for the whole operations will be largely exceeded. A fresh estimate has been called for.

14. Two schemes for the maintenance of records are in operation, viz., one in the Fatehsingh estate belonging to the Nawab Bahadur of Murshidabad and the other introduced during the year in the 10-annas share of the Mathurapur estate in the district of Malda. In both estates the proprietors have been granted the privilege of collecting rents through the medium of the certificate procedure. The expenditure in these operations was within the sanctioned estimates ; and the work, except for the unsatisfactory attendance of parties, proceeded smoothly and quickly.

15. The report of the Director of Land Records contains a gratifying account of the steady increase in the popularity of the settlement records and maps. No less than 14 lakhs of copies of *khatians* and nearly 17,000 copies of maps were sold to the public.

16. Mr. C. A. O'Donel held charge of the Bengal Survey Department until Major F. C. Hirst, I.A., returned from military duty and resumed charge of the Department on the 31st March, 1919. Mr. W. H. Nelson, I.C.S., officiated as Director of Land Records till the 5th November, 1918 and Mr. F. A. Sachse, I.C.S., was in charge of the Department for the rest of the year. The Governor in Council has much pleasure in acknowledging the services rendered by these officers. The good work of these officers and of those mentioned in the last two paragraphs of the survey and settlement reports will be noted.

ORDER.—Ordered that this Resolution be published in the *Calcutta Gazette* and that a copy of it, together with copies of the two reports, be submitted to the Government of India.

By order of the Governor in Council,

M. C. McALPIN,

Secy. to the Govt. of Bengal.

No. 1720L.R.

COPY, with copies of the two reports, forwarded to the Surveyor-General of India, for information.

No. 1721L.R.

COPY, with copy of the Survey Department's report, forwarded to the Municipal Department of this Government, for information, with special reference to paragraphs 17, 18 and 32 of the report.

No. 1722L.R.

COPY, with copies of the two reports, forwarded to the Appointment Department of this Government, for information, with special reference to paragraph 16 of the Resolution.

By order of the Governor in Council,

S. A. LATIF,

Under-Secy. to the Govt. of Bengal.

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The 13th February 1920.

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